(W)

LTR / FR / 28 Rev 00

POWERICA LIMITED

GENSET LOAD TEST RECORD

TEST BED-3

ENGINE MAKE	CUMMINS	DATE	21-Feb-23
ENGINE MODEL	6BTAA5.9 G13	ALTERNATOR MAKE	STAMFORD
ENGINE SR NO	32A84544248	ALTERNATOR MODEL	:S3L1D D41
PANEL SR NO	01/PAM1/2301503	ALTERNATOR RATING	125 KVA
	RATING : 100.0 KW 125.0 KVA	ALTERNATOR SR NO	G23A033048

TIME	VOLTS			AMPS			KW	KWH	FREQUENCY	SPEED	COOLANT TEMP.	LOT	LUBE OIL PRESSURE	%LOAD	PF
	RY	YB	BR	R	Y	B			HZ	RPM	°C	°C	kPa		
13 : 56	381	381	383	0	0	0	0	0	51.9	1557	30.0	0.0	638.0	0	0.00
14 : 07	380	380	382	37	37	37	24	0	51.3	1540	74.0	0.0	496.0	25	0.99
14 : 17	380	380	382	76	76	76	50	0	50.9	1528	82.0	0.0	454.0	50	1.00
14 : 27	379	380	381	114	114	114	75	0	50.5	1515	84.0	0.0	438.0	75	1.00
14 : 47	379	380	381	153	152	152	100	0	50.1	1502	87.0	0.0	427.0	100	1.00
14 : 57	379	379	381	167	167	167	110	0	49.8	1495	89.0	0.0	424.0	110	1.00
14 : 59	381	381	383	0	0	0	0	0	52.1	1564	82.0	0.0	453.0	0	0.00

POWERICA LIMITED

VIJAYAKUMARA
TESTED BY

21-Feb-23
DATE

SGS
Name Venu. B.P
Date Signature
SGS INDIA PVT. LTD., BANGALORE
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☑ WITNESSED
☐ REVIEWED

CUSTOMER REPRESENTATIVE SIGNATURE

Tata Cummins Pvt Ltd

Phaltan : 415523 (India)

Engine Test Certificate

This is to certify that Engine Model
6BTAA5.9-G13 Serial Number 32A84544248
has been tested as per ISO 3046 test standard and is certified to meet the specification of 119 KW @ 1500 R.P.M.

Date :: 20-01-2023 02:39 PM

Quality Assurance

TCP-QAC-F-142,REV00
Shop Order No - SO68255

POWERICA LIMITED
NELAMANGALA

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available at http://www.sgs.com/terms_and_conditions

Plot No G6.MIDC Ranjangaon...Shirur.MH.412220.IN

STAMFORD

Test Certificate

FOR

SALIENT POLE, SELF EXCITED / PMG EXCITED AND SELF REGULATED AC GENERATOR

Machine No: **G23A033048**

Type Test has been conducted on similar design machine
STANDARDS: Generator generally conforms to BS 5000 : Part 3,
Tested in accordance with BS EN 60034-1/IS/IEC 60034-1
Rotor dynamically balanced to BS ISO 1940 - 1

ROUTINE TEST CERTIFICATE FOR BRUSHLESS AC GENERATOR:

FRAME: S3L1D-D41	**AVR:** DM740	**AVR NO:** 122lc6109	**ENCLOSURE:** IP23	
RATED KVA: 125	**RATED VOLTS:** 415	**RATED AMPS:** 173.9	**FREQUENCY:** 50	**PHASE:** 3
POWER FACTOR: 0.8	**STR CONN:** Star	**STR WINDING:** 312	**DUTY:** Base Continuous	**WIRE:** 4-Wire
EXC. VOLTS: 56	**EXC.AMPS:** 3.2	**AMB TEMP:** 40		

FOR 3 PHASE SEQUENCE LOOKING FROM DRIVE END FOR CLOCKWISE ROTATION :U-V-W

WINDING	COLD RESISTANCE IN Ohm(+/- 10 %) AT 22°C (MAX VALUES)	INSULATION RESISTANCE (M- Ohm)	HV TEST 2KV FOR 1 MIN	INSULATION CLASS
STATOR (Phase to Phase)	0.086	2+	OK	H
ROTOR	1.315	2+	OK	H

REGULATION TEST

FREQ.	VOLTS	AMPS	KVA	PF	KW	EXC.VOLT	EXC.AMP	% LOAD
52	416.4	0.00	0.00	0.00	0.00	8.8	0.55	0.00
50	415	173.9	125	0.8	100	56	3.2	100.00

REGULATION = (N.L.VOLTAGE-F.L.VOLTAGE / RATED VOLTAGE)*100 = 0.34 %

Item Description: AC Generator.S3L1D.4.D.1.312.,3,.,11.5,.DM740.Onan Green
Remarks:

Date: 17-JAN-23	Job No: 4853658-074	AUTHORISED BY **Amol S Mahajan** Quality Assurance

Certificate Of Conformity

Quality System Certification
ISO 9001:2015

Frame Size : **S3L1D-D41**

Serial Number : **G23A033048**

Manufactured Date : 17-JAN-23

KVA: **125**

POWERICA LIMITED NELAMANGALA

Authorized By Quality Assurance: **Amol S Mahajan**

This document is electronically generated, hence signature not required.

Print Date: 17-JAN-23

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Date Signature
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21/02

POWERICA LIMITED
LOAD TEST REPORT
LTR/FR/01

ENGINE MAKE : CUMMINS
ENGINE MODEL : QSB 5.9-G2
ENGINE SR NO : 22M84542825
PANEL SR NO : 01/PAM1/2301195 KVA : 160 KW : 128

DATE : 21.02.2023
ALTERNATOR MAKE : STAMFORD
ALTERNATOR MODEL : S3L1D-F41
ALTERNATOR SR NO : N22L520681

Time	Genset L1-L2 RMS Voltage (V)	Genset L2-L3 RMS Voltage (V)	Genset L3-L1 RMS Voltage (V)	Genset L1 RMS Current (A)	Genset L2 RMS Current (A)	Genset L3 RMS Current (A)	Genset Total kVA (kVA)	Genset Total kW (kW)	Genset Average Power Factor	Average Genset Frequency (Hz)	Average Engine Speed (r/min (rpm))	Coolant Temperature (degC)	Oil Pressure (kPa)	Battery Voltage (V)	Genset Total KW Percent (%)
15:00:16.113	415	416	415	0	0	0	0	0	0	49.98	1501	54	528.1	28.2	0
15:00:19.612	415	416	415	0	0	0	0	0	0	49.97	1497	54	528.1	28.2	0
15:00:34.802	415	416	415	0	0	0	0	0	0	49.98	1497	54	524	28.3	0
15:00:49.786	415	416	415	0	0	0	0	0	0	50	1498	54	519.9	28	0
15:01:04.772	415	416	415	0	0	0	0	0	0	50.02	1502	55	515.7	28.2	0
15:01:19.769	415	416	415	39.73	40.69	39.91	28.9	28.7	0.99	50.02	1500	56	508.1	28.2	22
15:01:34.777	415	416	415	43.4	44.23	43.59	31.5	31.2	0.99	49.97	1496	59	504	28.3	24
15:02:27.035	415	416	415	43.37	43.98	43.65	31.4	31.3	1	50.03	1502	67	488.1	28.3	24
15:03:02.166	415	416	415	42.85	43.45	43.11	31.1	30.7	0.99	49.94	1499	73	475.7	28.2	24
15:04:02.163	415	416	415	43.05	43.58	43.32	31.2	31	0.99	49.99	1501	79	459.9	28.1	24
15:05:02.158	415	416	415	43.22	43.76	43.49	31.3	31	0.99	49.95	1495	83	444	28.2	24
15:06:03.666	415	416	415	43.06	43.56	43.32	31.2	30.8	0.99	49.94	1494	82	432.3	28.2	24
15:07:02.227	415	416	415	43.33	43.86	43.61	31.4	31.1	0.99	49.98	1503	82	428.2	28.2	24
15:08:02.166	415	416	415	43.3	43.87	43.59	31.4	31.2	1	50.01	1496	83	419.9	28	24
15:09:02.169	415	416	415	43.15	43.73	43.46	31.3	31.1	1	50.02	1496	82	415.8	28.2	24
15:10:02.172	415	416	415	89.21	89.56	89.25	64.3	64.2	1	50.01	1499	82	408.2	28.2	50
15:11:02.141	415	416	415	89.25	89.57	89.26	64.3	64.3	1	50.03	1497	83	404	28.2	50
15:12:02.158	415	416	415	89.11	89.47	89.17	64.2	64.2	1	50.01	1497	83	399.9	28.1	50
15:13:02.155	415	416	415	89.08	89.44	89.12	64.2	64.2	1	50.03	1500	83	399.9	28.1	50
15:14:02.182	415	416	415	89.09	89.46	89.13	64.2	64.1	1	50.03	1503	83	395.8	28.2	50
15:15:03.725	415	416	415	89.22	89.56	89.25	64.3	64.3	1	50.04	1503	83	395.8	28.2	50
15:16:02.539	415	416	415	89.24	89.65	89.31	64.3	64.1	1	49.97	1501	83	392.3	28.2	50
15:17:02.280	415	416	415	89.11	89.5	89.16	64.2	64.2	1	50.04	1502	83	392.3	28.2	50

ENGINE SR NO : 22M84542825

Time	Genset L1-L2 RMS Voltage (V)	Genset L2-L3 RMS Voltage (V)	Genset L3-L1 RMS Voltage (V)	Genset L1 RMS Current (A)	Genset L2 RMS Current (A)	Genset L3 RMS Current (A)	Genset Total kVA (kVA)	Genset Total kW (kW)	Genset Average Power Factor	Average Genset Frequency (Hz)	Average Engine Speed (r/min (rpm))	Coolant Temperature (degC)	Oil Pressure (kPa)	Battery Voltage (V)	Genset Total KW Percent (%)
15:18:03.833	415	416	415	88.93	89.33	89	64.1	64	1	49.95	1495	83	392.3	28.1	50
15:19:02.522	415	416	415	89.16	89.58	89.26	64.3	64.2	1	50.01	1502	83	392.3	28.1	50
15:20:02.334	415	416	415	89.03	89.43	89.12	64.2	64.1	1	50.03	1498	83	392.3	28.2	75
15:21:02.354	415	416	415	132.23	133.58	132.8	95.5	95.4	1	49.98	1497	84	392.3	28.2	75
15:22:02.373	415	416	415	132.4	133.71	132.9	95.6	95.5	1	49.99	1498	84	388.2	28	75
15:23:02.406	414	416	415	132.62	134.01	133.16	95.8	95.7	1	50.02	1503	85	388.2	28.2	75
15:24:05.427	414	416	415	132.47	133.83	133	95.7	95.6	1	50.01	1500	85	384	28.1	75
15:25:02.661	414	416	415	132.3	133.59	132.76	95.5	95.4	1	50.01	1503	85	384	28.2	75
15:26:02.462	414	416	415	132.34	133.66	132.83	95.5	95.4	1	49.98	1497	85	384	28.2	75
15:27:02.498	414	416	415	132.22	133.54	132.71	95.5	95.4	1	50	1502	85	384	28.1	74
15:28:02.521	414	416	415	131.84	133.1	132.33	95.2	95.1	1	50	1498	85	384	28.2	75
15:29:02.550	414	416	415	132.36	133.67	132.86	95.6	95.4	1	49.97	1498	85	384	28.2	100
15:30:02.597	414	415	414	178.22	179.45	178.86	128.3	128.3	1	50.02	1501	85	375.8	28.2	100
15:31:04.124	414	415	414	177.55	178.71	178.14	127.8	127.7	1	50	1502	87	375.8	28.2	100
15:32:02.907	414	415	414	177.85	179.05	178.51	128.1	128.1	1	49.94	1494	87	372.3	28	100
15:33:04.212	414	415	414	177.99	179.22	178.67	128.2	128.2	1	50.01	1501	88	372.3	27.9	100
15:34:02.925	414	415	414	177.61	178.84	178.25	127.9	127.9	1	50	1498	88	368.2	28.2	100
15:35:02.767	414	415	414	178.15	179.38	178.84	128.3	128.3	1	50.03	1503	88	368.2	28.1	100
15:36:02.771	414	415	414	178.19	179.48	178.86	128.3	128.3	1	50.01	1502	89	368.2	28.2	100
15:37:02.788	414	415	414	178.17	179.45	178.82	128.3	128.2	1	50.02	1504	89	364	28	100
15:38:02.806	414	415	414	178.25	179.53	178.9	128.4	128.4	1	50.04	1508	89	364	28.2	100
15:39:02.826	414	415	414	178.12	179.46	178.8	128.3	128.2	1	50.04	1494	90	364	28.1	100
15:40:02.844	414	415	414	178.34	179.67	178.98	128.4	128.4	1	50.02	1498	90	359.9	28.1	100
15:41:02.847	414	415	414	178.36	179.69	178.98	128.4	128.4	1	49.95	1495	90	359.9	28.1	100
15:42:02.879	414	415	414	178.31	179.62	178.9	128.4	128.3	1	50.03	1507	90	359.9	28.1	100
15:43:02.883	414	415	414	178.28	179.59	178.91	128.4	128.3	1	49.99	1503	91	359.9	28.1	100
15:44:02.903	414	415	414	178.4	179.71	179	128.4	128.4	1	50.03	1507	91	355.8	28.1	100
15:45:02.904	414	415	414	178.09	179.36	178.71	128.2	128.2	1	49.99	1507	90	355.8	28.1	100
15:46:02.921	414	415	414	178.28	179.59	178.89	128.4	128.4	1	50.03	1493	90	359.9	28.1	100
15:47:02.956	414	415	414	178.26	179.59	178.9	128.4	128.4	1	50.01	1503	90	359.9	28.2	100

ENGINE SR NO : 22M84542825

Time	Genset L1-L2 RMS Voltage (V)	Genset L2-L3 RMS Voltage (V)	Genset L3-L1 RMS Voltage (V)	Genset L1 RMS Current (A)	Genset L2 RMS Current (A)	Genset L3 RMS Current (A)	Genset Total kVA (kVA)	Genset Total kW (kW)	Genset Average Power Factor	Average Genset Frequency (Hz)	Average Engine Speed (r/min (rpm))	Coolant Temperature (degC)	Oil Pressure (kPa)	Battery Voltage (V)	Genset Total KW Percent (%)
15:48:02.974	414	415	414	178.32	179.69	178.96	128.4	128.3	1	49.97	1507	90	359.9	28.1	100
15:49:02.994	414	415	414	178.41	179.83	179.1	128.5	128.5	1	49.99	1506	89	359.9	28	110
15:50:02.996	412	414	412	180.08	181.63	180.72	128.8	141.4	1	48.87	1472	89	355.8	28.2	108
15:51:03.029	414	415	414	192.3	192.76	192.23	138	138	1	50.03	1503	90	355.8	28.2	108
15:52:03.175	413	415	414	194.91	195.22	193.89	139.6	139.3	1	49.94	1496	90	355.8	28.1	109
15:53:03.163	414	415	414	196.39	196.9	197.07	141.1	141	1	49.97	1494	90	355.8	28.2	110
15:54:03.160	414	415	414	195.84	196.24	196.45	140.7	140.5	1	49.98	1497	90	355.8	28.2	110
15:55:03.146	414	415	414	196.3	196.8	197.04	141.1	140.9	1	49.96	1497	90	355.8	28.2	110
15:56:04.676	414	415	414	196.35	196.84	197.08	141.1	141	1	50	1497	90	355.8	28.2	110
15:57:03.195	413	415	414	196.56	197.07	197.22	141.2	141.1	1	49.99	1496	89	355.8	28.2	110
15:58:03.234	414	415	414	196.26	196.73	196.92	141	141	1	50	1497	89	355.8	28.2	110
15:59:03.271	414	415	414	196.1	196.5	196.75	140.9	140.8	1	50	1497	90	355.8	28.2	4
16:00:03.320	415	416	415	9.47	9.45	9.37	6.8	5.5	0.82	49.85	1493	84	375.8	28.2	5
16:01:03.337	415	416	415	9.67	9.67	9.6	6.9	5.9	0.85	50.02	1500	82	384	28.2	0
16:02:03.372	415	416	415	0	0	0	0	0	0	50.09	1507	82	388.2	28.2	0
16:02:19.003	415	416	415	0	0	0	0	0	0	49.65	1486	82	388.2	28.2	0
16:02:33.548	415	416	415	0	0	0	0	0	0	49.94	1500	82	392.3	28.2	0
16:02:48.801	415	416	415	0	0	0	0	0	0	50.29	1511	82	395.8	28.2	0

TESTED BY

D. G. TESTING GEN POWERBOX

SGS WITNESSED REVIEWED

CUSTOMER'S REPRESENTATIVE

Date Signature

SGS INDIA PVT LTD., BANGALORE

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Tata Cummins Pvt Ltd

Phaltan : 415523 (India)

Engine Test Certificate

This is to certify that Engine Model

QSB 5.9 G2 Serial Number 22M84542825

has been tested as per ISO 3046 test standard and is certified to meet the specification of 154 KW @ 1500 R.P.M.

Date :: 22-12-2022 11:35 AM

Quality Assurance

TCP-QAC-F-142,REV00

Shop Order No - SO68182

D. G. TESTING GEN POWERICK

SGS

Name Venu. B.P

Date Signature

SGS INDIA PVT. LTD., BANGALORE

☐ WITNESSED ☐ REVIEWED

Cummins Generator Technologies India Private Limited.C-33 MIDC...Ahmednagar.MH.414111.IN

STAMFORD

Test Certificate

FOR

SALIENT POLE, SELF EXCITED / PMG EXCITED AND SELF REGULATED AC GENERATOR

Machine No: N22L520681

Type Test has been conducted on similar design machine
STANDARDS: Generator generally conforms to BS 5000 : Part 3,
Tested in accordance with BS EN 60034-1/IS/IEC 60034-1
Rotor dynamically balanced to BS ISO 1940 - 1

ROUTINE TEST CERTIFICATE FOR BRUSHLESS AC GENERATOR:				
FRAME: S3L1D-F41	**AVR:** No AVR	**AVR NO:** na	**ENCLOSURE:** IP23	
RATED KVA: 160	**RATED VOLTS:** 415	**RATED AMPS:** 222.6	**FREQUENCY:** 50	**PHASE:** 3
POWER FACTOR: 0.8	**STR CONN:** Star	**STR WINDING:** 312	**DUTY:** Base Continuous	**WIRE:** 4-Wire
EXC. VOLTS: 65	**EXC.AMPS:** 2.8	**AMB TEMP:** 40		

FOR 3 PHASE SEQUENCE LOOKING FROM DRIVE END FOR CLOCKWISE ROTATION :U-V-W

WINDING	COLD RESISTANCE IN Ohm(+/- 10 %) AT 22°C (MAX VALUES)	INSULATION RESISTANCE (M- Ohm)	HV TEST 2KV FOR 1 MIN	INSULATION CLASS
STATOR (Phase to Phase)	0.021	2+	OK	H
ROTOR	1.569	2+	OK	H

REGULATION TEST

FREQ.	VOLTS	AMPS	KVA	PF	KW	EXC.VOLT	EXC.AMP	% LOAD
52	416.4	0.00	0.00	0.00	0.00			0.00
50	415	222.6	160	0.8	128	65	2.8	100.00

REGULATION = (N.L.VOLTAGE-F.L.VOLTAGE / RATED VOLTAGE)*100 = 0.34 %

Item Description: AC Generator.S3L1D.4.F.1.312.,3,.,11.5,.None.Onan Green
Remarks:

Date: 27-DEC-22	Job No: 4689625-016	AUTHORISED BY **Rahul Kumar R Kushwaha** Quality Assurance

Certificate Of Conformity

Quality System Certification
ISO 9001:2015

Frame Size : S3L1D-F41

Serial Number : N22L520681 **Manufactured Date :** 27-DEC-22

KVA: 160

Authorized By Quality Assurance: **Rahul Kumar R Kushwaha**

This document is electronically generated, hence signature not required. **Print Date: 27-DEC-22**

D.G. TESTING GEN POWERICA

SGS
Name Venu. B.P
Date Signature
SGS INDIA PVT. LTD. BANGALORE
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WITNESSED REVIEWED

POWERICA LIMITED

LOAD TEST REPORT

LTR/FR/01

POWERICA
A PROMISE FOR POWER

ENGINE MAKE : CUMMINS
ENGINE MODEL : QSB 6.7-G15
ENGINE SR NO : 22M84542169
PANEL SR NO : 01/PAM1/2301216

KVA : 200 KW : 160

DATE : 21-02-2023
ALTERNATOR MAKE : STAMFORD
ALTERNATOR MODEL : S3L1D-H41
ALTERNATOR SR NO : N22K446470

Time	Alternator L1-L2 Voltage (V)	Alternator L2-L3 Voltage (V)	Alt L3-L1 Voltage (V)	Alternator L1 Current (amps)	Alternator L2 Current (amps)	Alternator L3 Current (amps)	Genset Total kVA (KVA)	Generator Frequency (Hz)	Engine Speed (rpm)	Coolant Temperature (degC)	Oil Pressure (gauge) (kPag)	Battery Voltage (Volts)	Load (%)
12:49:37.505	417	417	417	0	0	0	0	49.98	1499	50	499.9	27.75	0
12:49:42.590	417	417	417	0	0	0	0	49.98	1499	50	495.7	27.75	0
12:49:57.868	417	417	417	0	0	0	0	49.98	1497	52	495.7	27.75	0
12:50:12.688	416	416	416	0	0	0	0	49.98	1499	53	491.6	27.79	0
12:50:27.871	412	413	412	0	0	0	0	49.99	1499	55	491.6	27.79	0
12:50:42.647	415	415	414	0	0	0	0	49.98	1498	56	483.3	27.75	0
12:50:57.933	416	415	415	6	8	11	6.1	50.04	1501	57	483.3	27.75	3.813
12:51:12.687	415	415	415	55	55	58	40.2	49.99	1499	59	479.9	27.76	25.13
12:51:27.933	416	415	415	55	55	58	40.3	49.98	1498	62	475.7	27.79	25.19
12:52:27.859	416	415	415	55	55	58	40.3	49.98	1498	72	459.9	27.68	25.19
12:53:27.928	415	415	415	55	55	58	40.5	49.97	1496	79	443.3	27.79	25.31
12:54:27.867	416	416	415	55	55	58	40.4	49.97	1498	83	427.5	27.79	25.25
12:55:27.955	415	415	414	55	55	58	40.5	49.97	1499	82	419.9	27.76	25.31
12:56:27.911	416	416	415	55	56	58	40.4	49.99	1499	82	411.6	27.72	25.25
12:57:27.944	416	415	415	55	55	58	40.4	49.96	1497	82	403.3	27.79	25.25
12:58:28.181	415	415	415	55	55	58	40.4	49.98	1498	82	399.9	27.72	25.25
12:59:28.231	416	416	416	110	111	113	80.7	49.98	1499	83	383.3	27.72	50.44
13:00:28.187	417	417	416	110	111	113	80.3	49.99	1499	83	371.6	27.79	50.19
13:01:28.299	417	417	416	110	111	113	80.4	50.01	1497	84	363.4	27.72	50.25
13:02:28.319	416	416	415	110	111	112	80	49.99	1497	84	359.9	27.79	50
13:03:28.180	416	416	416	110	111	113	80.2	50.01	1499	84	351.6	27.72	50.13

P. G. TESTING GEN POWERICA

Time	Alternator L1-L2 Voltage (V)	Alternator L2-L3 Voltage (V)	Alt L3-L1 Voltage (V)	Alternator L1 Current (amps)	Alternator L2 Current (amps)	Alternator L3 Current (amps)	Genset Total kVA (KVA)	Generator Frequency (Hz)	Engine Speed (rpm)	Coolant Temperature (degC)	Oil Pressure (gauge) (kPag)	Battery Voltage (Volts)	Load (%)
13:04:28.182	416	416	415	110	111	113	80.6	50.01	1500	84	347.5	27.72	50.38
13:05:28.184	417	416	416	110	110	112	80.1	49.98	1499	84	347.5	27.75	50.06
13:06:28.249	416	415	415	110	111	112	80.1	49.97	1498	84	343.4	27.75	50.06
13:07:28.300	417	416	416	109	110	112	79.8	49.99	1499	84	343.4	27.76	49.88
13:08:28.272	416	416	415	110	110	112	80	49.99	1498	84	343.4	27.76	50
13:09:28.570	417	417	417	167	166	168	120.8	50	1499	85	335.8	27.84	75.5
13:10:28.635	418	418	417	168	168	169	121.8	49.98	1501	85	327.5	27.75	76.13
13:11:28.640	418	417	417	168	167	169	121.7	49.97	1500	85	323.4	27.76	76.06
13:12:28.464	418	417	417	168	167	169	121.4	50	1500	86	323.4	27.68	75.88
13:13:28.486	417	417	417	168	167	169	121.2	49.97	1499	86	319.9	27.76	75.75
13:14:28.493	417	417	417	168	167	169	121.4	49.99	1500	86	319.9	27.79	75.88
13:15:28.513	418	417	417	167	166	169	121.1	50	1497	86	315.8	27.76	75.69
13:16:28.575	418	417	417	167	166	168	121	50	1500	86	315.8	27.84	75.63
13:17:28.594	418	417	417	166	166	168	120.7	49.99	1497	86	315.8	27.76	75.44
13:18:28.893	417	417	417	167	167	168	121	49.98	1500	86	315.8	27.84	75.63
13:19:28.582	418	418	418	219	220	221	159.8	50.03	1502	86	307.5	27.75	99.88
13:20:28.883	419	418	418	220	221	221	160.3	50.01	1500	87	299.9	27.79	100.2
13:21:28.874	419	418	418	220	220	221	160.1	49.95	1497	87	295.8	27.76	100.1
13:22:28.891	419	418	418	220	220	221	160.1	49.98	1499	88	295.8	27.79	100.1
13:23:28.954	418	418	418	219	220	221	159.5	50.02	1499	88	291.6	27.72	99.69
13:24:28.951	418	418	418	220	220	220	159.5	50.03	1498	87	291.6	27.79	99.69
13:25:28.819	418	418	418	220	220	221	160	49.96	1498	88	287.5	27.72	100
13:26:28.883	419	418	418	221	221	221	160.6	49.97	1497	88	287.5	27.76	100.4
13:27:28.949	418	418	417	220	221	221	160.2	50.02	1498	88	287.5	27.79	100.1
13:28:28.937	419	418	418	220	220	221	160.1	49.98	1500	88	287.5	27.68	100.1
13:29:28.860	419	419	418	220	220	221	160	49.99	1500	88	283.4	27.75	100
13:30:28.893	419	418	418	220	220	220	159.7	49.99	1498	88	283.4	27.79	99.81
13:31:28.959	418	418	418	221	221	222	161.2	49.97	1496	88	283.4	27.76	100.8
13:32:28.960	419	418	418	221	221	222	161	50.01	1497	87	283.4	27.75	100.6
13:33:29.261	419	418	417	221	221	222	160.6	50	1501	87	283.4	27.72	100.4

Time	Alternator L1-L2 Voltage (V)	Alternator L2-L3 Voltage (V)	Alt L3-L1 Voltage (V)	Alternator L1 Current (amps)	Alternator L2 Current (amps)	Alternator L3 Current (amps)	Genset Total kVA (KVA)	Generator Frequency (Hz)	Engine Speed (rpm)	Coolant Temperature (degC)	Oil Pressure (gauge) (kPag)	Battery Voltage (Volts)	Load (%)
13:34:29.190	418	418	417	222	222	222	161.1	49.98	1500	88	283.4	27.84	100.7
13:35:29.330	418	417	417	221	221	222	160.7	50.01	1501	87	283.4	27.76	100.4
13:36:28.986	418	418	418	220	221	222	160.4	50.01	1500	87	287.5	27.72	100.3
13:37:29.289	418	418	417	221	222	223	161.1	50.03	1498	87	283.4	27.72	100.7
13:38:29.213	419	418	418	222	222	222	161.4	49.98	1497	87	287.5	27.75	100.9
13:39:29.247	418	418	417	221	221	222	160.5	49.93	1497	87	287.5	27.76	100.3
13:40:29.296	419	419	418	245	244	244	177.4	50	1496	88	279.9	27.68	110.9
13:41:29.506	418	418	417	244	244	244	176.7	50.06	1502	89	279.9	27.75	110.4
13:42:29.521	419	418	418	244	244	244	176.9	49.96	1498	89	275.8	27.79	110.6
13:43:29.352	419	419	418	244	244	244	177.3	49.98	1500	89	275.8	27.76	110.8
13:44:29.199	418	418	418	244	244	244	177.3	50.05	1500	89	271.7	27.84	110.8
13:45:29.263	419	418	418	244	244	244	177.6	49.93	1499	90	271.7	27.76	111
13:46:29.247	418	418	418	244	244	244	177	49.99	1501	90	267.5	27.72	110.6
13:47:29.551	418	418	418	244	244	244	177.3	50	1496	90	271.7	27.75	110.8
13:48:29.511	418	417	417	244	244	244	176.4	50.05	1502	90	267.5	27.75	110.3
13:49:29.383	418	417	417	244	244	244	177	50.03	1499	90	267.5	27.72	110.6
13:50:29.511	414	414	414	6	8	10	5.5	49.99	1500	84	307.5	27.76	3.438
13:51:29.571	414	414	414	6	8	10	5.5	49.97	1499	82	331.6	27.75	3.438
13:52:29.642	415	415	414	6	8	10	5.8	49.96	1497	81	347.5	27.75	3.625
13:53:25.395	414	414	414	0	0	0	0	49.98	1498	81	363.4	27.75	0
13:53:40.910	414	414	413	0	0	0	0	50.04	1500	80	363.4	27.68	0
13:53:55.827	414	414	414	0	0	0	0	49.98	1500	80	367.5	27.79	0
13:54:24.240	415	415	414	0	0	0	0	49.99	1498	80	371.6	27.76	0

D. G. TESTING GEN

TESTED BY : TOOMY

SGS

WITNESSED
REVIEWED

Name: Venu. B.P

Date: 21/2 Signature:

SGS INDIA PVT. LTD., BANGALORE

The SGS stamp and signature is for witnessing/observation Purposes only and is subject to the provisions of the SGS General Conditions of Services, particularly article 2 (d), available at http://sgs.com/terms_and_conditions

CUSTOMER REPRESENTATIVE SIGNATURE

Tata Cummins Pvt Ltd

Phaltan : 415523 (India)

Engine Test Certificate

This is to certify that Engine Model
QSB 6.7 G15 Serial Number 22M84542169
has been tested as per ISO 3046 test standard and is certified to meet the specification of 191 KW @ 1500 R.P.M.

Date :: 9-12-2022 04:56 PM

Quality Assurance

TCP-QAC-F-142,REV00
Shop Order No - SO58089

D. G. TESTING GEN

SGS
Name Venu. B.P
Date Signature
SGS INDIA PVT LTD., BANGALORE
☐ WITNESSED
☐ REVIEWED
The SG... company signatories for witnessing/observa... Purpose only and is subject to the provisions of the ... General Conditions of Services, particularly article ... available at http://sgs.com/term... and conditions...

Cummins Generator Technologies India Private Limited.C-33 MIDC...Ahmednagar.MH.414111.IN

STAMFORD

Test Certificate

FOR

SALIENT POLE, SELF EXCITED / PMG EXCITED AND SELF REGULATED AC GENERATOR

Machine No: N22K446470

Type Test has been conducted on similar design machine
STANDARDS: Generator generally conforms to BS 5000 : Part 3,
Tested in accordance with BS EN 60034-1/IS/IEC 60034-1
Rotor dynamically balanced to BS ISO 1940 - 1

ROUTINE TEST CERTIFICATE FOR BRUSHLESS AC GENERATOR:				
FRAME: S3L1D-H41	**AVR:** No AVR	**AVR NO:** NA	**ENCLOSURE:** IP23	
RATED KVA: 200	**RATED VOLTS:** 415	**RATED AMPS:** 278.2	**FREQUENCY:** 50	**PHASE:** 3
POWER FACTOR: 0.8	**STR CONN:** Star	**STR WINDING:** 312	**DUTY:** Base Continuous	**WIRE:** 4-Wire
EXC. VOLTS: 58	**EXC.AMPS:** 2.6	**AMB TEMP:** 40		

FOR 3 PHASE SEQUENCE LOOKING FROM DRIVE END FOR CLOCKWISE ROTATION :U-V-W

WINDING	COLD RESISTANCE IN Ohm(+/- 10 %) AT 22°C (MAX VALUES)	INSULATION RESISTANCE (M- Ohm)	HV TEST 2KV FOR 1 MIN	INSULATION CLASS
STATOR (Phase to Phase)	0.0149	2+	OK	H
ROTOR	1.883	2+	OK	H

REGULATION TEST

FREQ.	VOLTS	AMPS	KVA	PF	KW	EXC.VOLT	EXC.AMP	% LOAD
52	416.4	0.00	0.00	0.00	0.00			0.00
50	415	278.2	200	0.8	160	58	2.6	100.00

REGULATION = (N.L.VOLTAGE-F.L.VOLTAGE / RATED VOLTAGE)*100 = 0.34 %

Item Description: AC Generator.S3L1D.4.H.1.312.,2,.,11.5,.None.Onan Green
Remarks:

Date: 06-NOV-22	Job No: 4495635-001	AUTHORISED BY **Nanasaheb D Kshirsagar** Quality Assurance

Certificate Of Conformity

Quality System Certification
ISO 9001:2015

Frame Size : S3L1D-H41

Serial Number : N22K446470

Manufactured Date : 06-NOV-22

KVA: 200

SGS
Name Venu. B.P
Date Signature
SGS INDIA PVT LTD., BANGALORE
WITNESSED
REVIEWED
Purposes only and is subject to the provisions of the SGS General ... Solutions of Services, ... any article 2 (e), ...

D. G. TESTING GEN

Authorized By Quality Assurance: **Nanasaheb D Kshirsagar**

This document is electronically generated, hence signature not required.

Print Date: 06-NOV-22