

GOVERNMENT OF TELANGANA
ELECTRICAL INSPECTORATE
(An IS/ISO 9001: 2015 Certified Department)



From

The Chief Electrical Inspector to Government

5th Floor

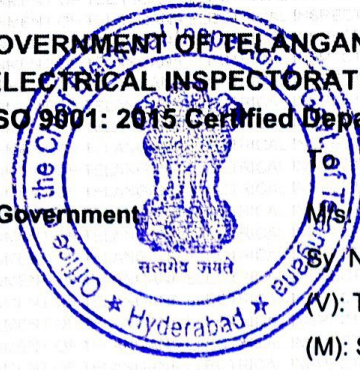
R&B Buildings

A.C. Guards

Masabtank

Hyderabad-500004.

Phone No: 040-23453023



M/s G V DISCOVERY CENTERS PVT LTD

By No.: 234

(V): Turkapally

(M): Shamirpet

(D): Medchal

Pincode: 500078 , Phone No: 9100126998



Lr.No.CEIG/TS/EI Ex. 650V/HT-MDL-2023-10599/D.No.35/2024 Dated: 05/01/2024

Sub : The Electricity Act-2003 and Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2023 - Electrical Installation of Voltage Exceeding 650 V of M/s **G V DISCOVERY CENTERS PVT LTD, Turkapally Shamirpet Mandal Medchal District** - Statutory Approval under Section 54 of the Electricity Act-2003 and Regulation - **45(3)** of CEA (Measures Relating to Safety and Electric Supply), Regulations 2023 Accorded.

Ref:- 1) Inspection Dated **29/12/2023**

2) Your Lr. received on dated., 05/01/2024

Under Section 54 of The Electricity Act-2003 and Regulations **45(3)** of Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2023, the following equipment of your Electrical Installation of voltage Exceeding 650V are approved for energisation.

AS PER ANNEXURE ENCLOSED.

Under Regulation 45(6) of Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2023, any additions or alteration in your installation shall not be connected to supply until the same are approved in writing by this office and offer for annual inspection under Regulation 32 of Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2023 every year to the concerned Deputy Electrical Inspector.

Under Regulation 15(4), 48(7) of Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations, 2023, you are at all times solely responsible for the maintenance of the above installation on such condition as to be free from danger.

The above approval accorded is without prejudice to the statutory/ mandatory obligations to be fulfilled by you under various other acts and rules as the case may be. The approval accorded for energizing the electrical equipment is the safety for men and machine from electrical hazards in your installation and ipso facto does not confer any right to be used for any other purpose other than for which the approval is accorded.

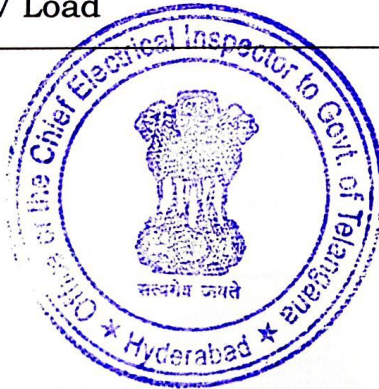
Yours faithfully

J. Nini - 5/1/24
**CHIEF ELECTRICAL INSPECTOR
TO GOVERNMENT**

Encl:- List of Load Particulars

Dt. 05-01-2024.

S.No.	Name of the Equipment	Details of the Equipment.
I.	H.V. INSTALLATION (11 KV)	
1.	VCBs	Make:- ABB Cap : 1250 A, 12 KV S.No:- 1VYN020923000567, 1VYN020923000568, 1VYN020923000596 Qty: 03Nos
2.	Transformers 1 & 2	Make:- Voltamp S.No:- JNC 65491/1, JNC 65491/2 Cap: 1600 KVA, 11 KV/433 V.
II.	M.V. INSTALLATION (415V)	
1.	MV Load	1549.6 KW, 415 V
2.	Capacitor	600 KVAR, 415 V
3.	Generator- I & II	Make: Stamford Sl.No: N23E213344, N23E202296 Cap:1500 KVA, 415 V
III.	L.V. INSTALLATION.(230V)	
1.	Lighting Load	52.5 KW 230 V
2.	LV Load	90 KW, 230 V



CHIEF ELECTRICAL INSPECTOR
TO GOVERNMENT.

CHIEF ELECTRICAL INSPECTOR
TO GOVERNMENT.

G.V. DISCOVERY CENTERS PVT.LTD.

Plot No. 1A, SY.NO: 234 & 235, TURKAPALLY VILLAGE, SHAMEERPET MANDAL, MEDCHAL MALKAJGIRI DISTRICT.

M.V. LOAD DETAILS

SI.NO	M/C NAME	MAKE	SI.NO:	KW	VOLTS
1	Lift - 1	Johnson lifts Pvt Ltd	LR-3386	7.5	415
2	Lift - 2	Johnson lifts Pvt Ltd	LR-3387	7.5	415
3	Lift - 3	Johnson lifts Pvt Ltd	LR-3388	7.5	415
4	Lift - 4	Johnson lifts Pvt Ltd	LR-3389	7.5	415
5	Compressor - 1	Blue star	A2617A700477	215	415
6	Compressor - 2	Blue star	A2617A800496	215	415
7	Compressor - 1	Blue star	A2617A700478	215	415
8	Compressor - 2	Blue star	A2617A800504	215	415
9	Compressor - 1	Blue star	A2617A800503	215	415
10	Compressor - 2	Blue star	A2617A800498	215	415
11	Chiller Primary Pump - 1	KSB	510040886/0100/01	15	415
12	Chiller Primary Pump - 2	KSB	510040886/0100/02	15	415
13	Chiller Secondary Pump - 1	KSB	510040886/0200/01	15	415
14	Chiller Secondary Pump - 2	KSB	510040886/0200/02	15	415
15	Chiller Primary Pump - 3	KSB	510040886/0100/03	15	415
16	Chiller Primary Pump - 4	KSB	510040886/0100/04	15	415
17	Chiller Secondary Pump - 3	KSB	510040886/0200/03	15	415
18	Chiller Secondary Pump - 4	KSB	510040886/0200/04	15	415
19	Fire fighting Electrical Main Pump - 1	Willo	REFVFAM6673	45	415
20	Fire fighting Electrical Main Pump - 2	Willo	REFVFAM6419	45	415
21	Fire fighting Jockey Pump - 1	Willo	8224014/2301/470800	4	415
22	Fire fighting Jockey Pump - 2	Willo	8224014/2301/470801	4	415
23	Booster pump	Willo	2000586617	5.6	415
24	STP Collection Tank Pump - 1	Toshio	712	0.75	415
25	STP Collection Tank Pump - 2	Toshio	717	0.75	415
26	STP Pump Room	Toshio	E220704482H3KK	0.75	415
27	STP Pump Room	Toshio	E220704483H3KK	0.75	415
28	ETP Collection Tank Pump - 1	Toshio	713	0.75	415
29	ETP Collection Tank Pump - 2	Toshio	716	0.75	415
30	ETP Collection Tank Pump - 3	Toshio	714	0.75	415
31	ETP Collection Tank Pump - 4	Toshio	715	0.75	415
TOTAL				1549.6	

L V LOAD DETAILS

FIRST FLOOR PDB - 1 RAW POWER LOAD DETAILS

S.NO.	DESCRIPTION	WATTS		NUMBERS	WATTS OR KW
1	6A Sockets	125	X	80	10000
2	16A Sockets	500	X	10	5000
TOTAL					15000W OR 15KW
Total Raw Power Load		15KW	X	3 NOS	45KW

FIRST FLOOR PDB - 2 RAW POWER LOAD DETAILS

S.NO.	DESCRIPTION	WATTS		NUMBERS	WATTS OR KW
1	6A Sockets	125	X	80	10000
2	16A Sockets	500	X	10	5000
TOTAL					15000W OR 15KW
Total Raw Power Load		15KW	X	3 NOS	45KW

LIGHTING LOAD DETAILS

GROUND FLOOR LDB - 1 LIGHTING LOAD DETAILS

S.NO.	DESCRIPTION	WATTS		NUMBERS	WATTS OR KW
1	Tube lights	40	X	25	1000
2	Fans	60	X	10	600

3	LED	18	X	124	2232
4	LED	15	X	245	3675
	TOTAL				7500W OR 7.5KW

Total Lighting Load 7.5KW X 3 NOS 22.5KW

GROUND FLOOR LDB - 2 LIGHTING LOAD DETAILS

S.NO.	DESCRIPTION	WATTS		NUMBERS	WATTS OR KW
1	Tube lights	40	X	25	1000
2	Fans	60	X	10	600
3	LED	18	X	124	2232
4	LED	15	X	245	3675
	TOTAL				7500W OR 7.5KW

Total Lighting Load 7.5KW X 3 NOS 22.5KW

EXTERNAL LIGHTING LOAD DETAILS

S.NO.	DESCRIPTION	WATTS		NUMBERS	WATTS OR KW
1	Tube lights	40	X	27	1080
2	LED	18	X	150	2700
3	LED	15	X	248	3720
	TOTAL				7500W OR 7.5KW

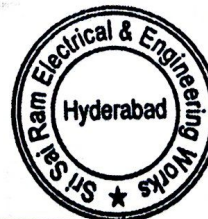
TOTAL EQUIPMENT LOAD DETAILS

SI.NO	EQUIPMENT NAME	MAKE	SI.NO	CAPACITY	VOLTS
1	TRANSFORMER -1	VoltAmp	JNC 65491/1	1600KVA	11000/433V
2	TRANSFORMER -2	VoltAmp	JNC 65491/2	1600KVA	11000/433V
3	GENERATOR - 1	Stamford	N23E213344	1500KVA	415V
4	GENERATOR - 2	Stamford	N23E202296	1500KVA	415V
5	VCB - 1	ABB	IVYN020923000567	1250 A	11KV
6	VCB - 2	ABB	IVYN020923000568	1250 A	11KV
7	VCB - 3	ABB	IVYN020923000596	1250 A	11KV

TOTAL LOAD: MV LOAD 1549.6KW + LV 90KW + LL 52.5KW + 600KVAR CAPACITOR + GENERATOR 1500KVA, 415V X 2NOS + TRANSFORMER 1600KVA, 11000/433V X 2NOS.

For M/s. GV DISCOVERY CENTERS PVT.LTD

(Authorized Signatory)



APPROVED
P. h. n. e. s.
5/11/24
Chief Electrical
Inspector to Govt.

6/11/24
DCL

VOLTAMP TRANSFORMERS LIMITED

UNIT - II, VADADALA, SAVALI, VADODARA 391520

Phone : +91 9374648493 / 8513 / 8522

Fax : +91 2667 251250

Email ID : voltamp@voltamptransformers.com



TRANSFORMER Sr.No.

Format No. TST/F/10

JNC

65491/1

CAST RESIN DRY TYPE TRANSFORMER

Sheet 1 of 2

Purchaser : GV Discovery Centre Pvt. Ltd.
 Purchaser's PO No : 20230325042 Dt. 25.03.2023
 Project : Genopolis., Shamirpet, Hyderabad.

ROUTINE TESTS

Date of Testing : 31.05.2023

Vector Group : Dyn11

KVA : 1600 Voltage Ratio : 11000 / 433 Volts

% Tappings : + 5 % to - 15 % in Step of 1.25 %

IS : 11171 / 2026 - Up to Date

1 MEASUREMENT OF WINDING RESISTANCE AT

37.4 °C

H.V. Winding in "Ω": At Tap No.

5

L.V. Winding in "mΩ" :

Between	1U1V	=	0.5046	Between	2u2v	=	0.502
	1V1W	=	0.5039		2v2w	=	0.501
	1W1U	=	0.5045		2w2u	=	0.514

2 MEASUREMENT OF SHORT CIRCUIT IMPEDANCE & LOAD LOSSES :

Tested at 37.5 °C on HV Side

C.T. Ratio = C = 100 / 1 = 100 P.T. Ratio = P = 660 / 110 = 6

Tap No.	Current X C			Imp Voltage x P x √3			Wattmeter Reading			Total M.F. = C X P	(W1+W2+W3) X M.F	Load Loss in Watts
	Ir	Iy	Ib	Vrn	Vyn	Vbn	W1	W2	W3			
5	0.8471	0.8473	0.8288	61.93	61.84	61.53	5.71	6.65	6.08	600	18.44 X 600	11064

3 MEASUREMENT OF NO-LOAD LOSS & CURRENT : Tested at 433 Volts on

LV side.

C.T. Ratio = C = 40 / 1 = 40 P.T. Ratio = P = 660 / 110 = 6

% V	Voltage x P x √3		No Load Current X C			Wattmeter Reading			Total M.F. = C X P	(W1+W2+W3) X M.F	No Load Loss in Watts
	Vmean (n)	Vrms (n)	Ir	Iy	Ib	W1	W2	W3			
100	41.66	41.77	0.1693	0.1393	0.1720	4.14	2.67	2.93	240	9.74 X 240	2338

4 INDUCED OVER VOLTAGE TEST :

Tested on LV Side

Applied 2 x 433 Volts at 124.9 Cycles/Secs. And withstood for 50 Secs.

5 SEPARATE SOURCE VOLTAGE TEST :

(A) Applied 28 kV Between HV winding to L.V. Winding & Earth and withstood for 60 secs. (LC - 25mA)

(B) Applied 3 kV Between LV winding to H.V. Winding & Earth and withstood for 60 secs. (LC - 04mA)

6 INSULATION RESISTANCE TEST :-

AT 38.5 °C

(For Reference Only)

(a) H.V. winding to Earth 150000 MΩ

(b) L.V. Winding to Earth 312000 MΩ

(c) H.V. winding to L.V. Winding 305000 MΩ

7 TURNS RATIO TEST :-

Chief Electrical Inspec

Tap Position No.

Refer Sheet 2 of 2

U/u Phase

V/v Phase

W/w Phase

8 POLARITY PHASE RELATIONSHIP (VECTOR GROUP) CHECKED :

FOUND OK Dyn11

Witnessed by:

Tested by:

V Ramesh Reddy

Puma Chandar

Rajeev Vichare

GV Discovery Centre Pvt. Ltd.

Rajendra Chauhan/LI

Voltamp Transformers Ltd.

VOLTAMP TRANSFORMERS LIMITED

UNIT - II, VADADALA, SAVALI, VADODARA 391520

Phone : +91 9374648493 / 8513 / 8522

Fax : +91 2667 251250

Email ID : voltamp@voltamptransformers.com

TRANSFORMER Sr.No.

Format No. TST/F/10

JNC

65491/2

CAST RESIN DRY TYPE TRANSFORMER

Sheet 1 of 2

Purchaser : GV Discovery Centre Pvt. Ltd.
 Purchaser's PO No : 20230325042 Dt. 25.03.2023
 Project : Genopolis., Shamirpet, Hyderabad.

ROUTINE TESTS

Date of Testing : 31.05.2023

Vector Group : Dyn11

KVA : 1600

Voltage Ratio : 11000 / 433 Volts

% Tappings : + 5 % to - 15 % in Step of 1.25 %

IS : 11171 / 2026 - Up to Date

1 MEASUREMENT OF WINDING RESISTANCE AT 37.4 °C									
H.V. Winding in "Ω": At Tap No.		5							L.V. Winding in "mΩ" :
Between 1U1V =		0.5030							Between 2u2v = 0.501
1V1W =		0.5026							2v2w = 0.500
1W1U =		0.5034							2w2u = 0.508

2 MEASUREMENT OF SHORT CIRCUIT IMPEDANCE & LOAD LOSSES : Tested at 37.5 °C on HV Side									
C.T. Ratio = C = 100 / 1 = 100 P.T. Ratio = P = 660 / 110 = 6									

Tap No.	Current X C			Imp Voltage x P x √3			Wattmeter Reading			Total M.F. = C X P	(W1+W2+W3) X M.F	Load Loss in Watts
	Ir	Iy	Ib	Vrn	Vyn	Vbn	W1	W2	W3			
5	0.8534	0.8540	0.8350	62.45	62.38	62.05	5.80	6.75	6.18	600	18.73 X 600	11238

3 MEASUREMENT OF NO-LOAD LOSS & CURRENT : Tested at 433 Volts on LV side.									
C.T. Ratio = C = 40 / 1 = 40 P.T. Ratio = P = 660 / 110 = 6									

% V	Voltage x P x √3		No Load Current X C			Wattmeter Reading			Total M.F. = C X P	(W1+W2+W3) X M.F	No Load Loss in Watts
	Vmean (n)	Vrms (n)	Ir	Iy	Ib	W1	W2	W3			
100	41.66	41.74	0.2500	0.1946	0.2109	4.25	3.78	2.04	240	10.07 X 240	2417

4 INDUCED OVER VOLTAGE TEST : Tested on LV Side									
Applied 2 x 433 Volts at 124.8 Cycles/Secs. And withstood for 50 Secs.									

5 SEPARATE SOURCE VOLTAGE TEST :									
(A) Applied 28 kV Between HV winding to L.V. Winding & Earth and withstood for 60 secs. (LC - 26mA)									
(B) Applied 3 kV Between LV winding to H.V. Winding & Earth and withstood for 60 secs. (LC - 04mA)									

6	INSULATION RESISTANCE TEST :-		AT	38.5	° C	(For Reference Only)	
(a)	H.V. winding to Earth	170000	MΩ	ACCEPTED			(With 5.0kV Megger)
(b)	L.V. Winding to Earth	342000	MΩ				(With 1.0kV Megger)
(c)	H.V. winding to L.V. Winding	245000	MΩ				(With 5.0kV Megger)

7 TURNS RATIO TEST :-									
-----------------------	--	--	--	--	--	--	--	--	--

Tap Position No.											
U/u Phase											
V/v Phase											
W/w Phase											

8 POLARITY PHASE RELATIONSHIP (VECTOR GROUP) CHECKED :									
--	--	--	--	--	--	--	--	--	--

Witnessed by:										Tested by:	
---------------	--	--	--	--	--	--	--	--	--	------------	--

V Ramesh Reddy

Ruma Chandar

Rajeev Vichare

GV Discovery Centre Pvt. Ltd.

Rajendra Chauhan

Voltamp Transformers Ltd.