

\* Mandatory spares shall be supplied as per LOA

Cleared for manufacturing against  
LOA No. AEGCL / MD / Tech-1115/  
NFCON / Bordubi / 2023 / 37  
dtd. 13 / 02 / 2024

  
Manju Rabha  
General Manager (Non-EAP)  
O/o the MD, AEGCL



GTP FOR 145KV SF6 GAS CIRCUIT BREAKER				Rev.02
Title : Guaranteed Technical Particulars		Doc.No.:S3GTP-120B-40A		
Equipment : SF6 Gas Circuit Breaker		Spring-Spring Type: 120-SFM-40AA		
1	GENERAL	Unit	GO TYPE SINGLE STACK	
a)	Name of the Manufacturer		CG Power & Industrial Solutions Limited	
b)	Country of Manufacture		India	
c)	Type of Circuit Breaker		SF6 Gas Insulated	
d)	Manufacturer's type designation		120-SFM-40AA	
e)	Standard applicable		IEC-62271-100	
f)	Rated Voltage	kV (rms)	145	
g)	Rated Current	A	Upto 3150	
i.	under normal condition at 40 degree C ambient	A	Upto 3150	
ii.	under site condition at 50 degree C ambient	Hz	50	
h)	Rated Frequency	No.	3	
i)	Number of poles		3	
j)	Whether gang operated		Yes	
i.	Electrically		Yes	
ii.	Mechanically		Live tank	
k)	Whether dead tank or live tank		Outddor	
l)	Type of installation	No	1	
m)	Number of breaks per pole	kAp	100	
n)	Latching current		M2 / E1 / C2 EX	
o)	Class			
2	GUARANTEED RATINGS			
a)	Rated short circuit breaking currents	kA	40	
i.	Symmetrical component at rated voltage	%	45.00%	
ii.	DC component	kA	47.4	
iii.	Asymmetrical breaking current at rated voltage	MVA	10046	
iv.	Rated symmetrical breaking capacity	MVA	11907	
v.	Rated asymmetrical breaking capacity			
b)	Rated short circuit making current OR Short	kA (peak)	100	
i.	at higher rated voltage	kA (peak)	100	
ii.	at lower rated voltage			
c)	Break time			
i.	Rated Break time	ms	<=60	
ii.	Maximum total break time under any duty condition for	ms	<=60	
d)	Rated Closing time	ms	<=70	
e)	Rated Opening time	ms	<=30	
f)	Rated maximum Opening time under any condition with	ms	<=34	
g)	Rated Arcing time	ms	<=30	
h)	First pole to clear factor		1.3	
i)	Rated Close open time	ms	<=60 ms	
j)	Rated Short-time withstand current			
i.	1 second	kA	40	
ii.	3 second	kA	40	
k)	Rated operating duty		O-0.3s-CO-3min-CO	
l)			L90 & L75 As per IEC-62271-100	
m)	Rated out-of-phase breaking current OR Rated breaking	kA	10	
n)	Rated line charging breaking current	A	50	
	Rated cable charging breaking current	A	160	
p)	Rated single capacitor bank breaking current	A	400	
q)	Corresponding over voltage during breaking capacitive	p.u.	< 2.3	
r)	Rated shunt reactor breaking current	A	315	
s)	Maximum arc duration and corresponding breaking cur	ms, kA	30, 40	
t)	Rated Small fault current breaking capacity	kA	4	
u)	Maximum temperature rise for main contacts over an a	oC	< 75 degree C (As per IEC).	
v)	Rated supply voltage and pick up range for			
i.	Trip coil	V DC	110V, (70 to 110%)	
ii.	Close coil	V DG	110V (85 to 110%)	
w)	Normal power consumption at rated supply voltage of			
i.	Trip Coil	W	2x400W at 110 VDC	
ii.	Close Coil	W	400W at 110 VDC	
x)	Rated pressure and limits of operation for extinguishing	(kg/cm <sup>2</sup> )	6.0 ; 5.0 to 5.5	
y)	Minimum dead time for			
i.	Three phase reclosing	ms	300	
ii.	Single phase reclosing	ms	NA	

Approved

General Manager (P&D)  
AEGCL

Checked

DGM, O/o the G.M. (P&D)

Checked

AGM O/o the GM (P&D)

Checked by

Asst. Manager  
O/o the G.M. (P&D)  
AEGCL, Narengi, Ghy-26



				100%	60%	30%	10%
z)	Data on Restriking voltage	%		100%		273	272
i.	Rated Breaking currents	kV (peak)	249	266	1.54	1.54	1.54
ii.	TRV Peak		1.4	1.5	1.3	1.3	1.3
iii.	Amplitude factor		1.3	1.3	5	7	
iv.	First pole to clear factor		2	3			
v.	Rate of rise of restriking voltage	kV/μs					
aa)	No. of breaker operations before maintenance		10				
i.	at rated interrupting capacity		20				
ii.	at 50% of rated interrupting capacity		1000				
iii.	at rated normal current		3000				
iv.	at 50% of rated normal current						
bb)	Maximum pole discrepancy during	ms	<=3.3				
i.	Opening	ms	<=5				
ii.	Closing	ms	Suitable for Operating seq.				
cc)	Minimum time interval between each make / break operations	ms					
3	<b>DIELECTRIC WITHSTANDS OF COMPLETE BREAKER</b>						
a)	One minute dry and wet power withstand voltage						
i.	Between live terminal	kV (rms)	275				
ii.	Between terminal with breaker contacts open & ground	kV (rms)	275				
b)	1.250 micro second impulse withstand voltage	kV (peak)	650				
i.	Between live terminal	kV (peak)	650				
ii.	Between terminal with breaker contacts open & ground						
c)	Creeepage distance	mm	3625				
i.	To earth	mm	3625				
ii.	Across interruptor	μV	<=1000 @ 92 kV				
d)	Maximum radio interference voltage (micro V) at 1.1 Ur /root 3						
e)	Visible Corona discharge voltage	kV (rms)	92 kV rms				
4	<b>OPERATING MECHANISM</b>						
4.1	<b>SPRING CHARGING MECHANISM</b>						
a)	Type of operating mechanism		Motorised Spring charged mechanism				
i.	Closing		Spring				
ii.	Opening		Spring				
b)	Type Designation		SOM 1-2				
c)	No. of operations possible with stored energy		O-C-O				
4.2	<b>DETAILS OF SPRING CHARGING MOTOR</b>						
a)	Type of Motor		Universal				
b)	Type of Mounting		Neck Mounted				
c)	Direction of rotation as viewed from non-driving end		Counter Clockwise				
d)	Rated supply voltage and operating range	V AC	1 Ph, 240, 85-110%				
e)	Motor Wattage	W	750 input, 360 output				
f)	Rated speed at rated voltage and frequency on no load	rpm	775				
g)	Full load current at rated voltage and frequency	A	6A at 240V, 50Hz AC at full efficiency				
h)	Efficiency of motor at rated voltage and frequency	%	50				
i)	Starting current		< 600% at full load current				
j)	Stator winding insulation class		B				
k)	Weight	kg	3 approx.				
l)	Maximum time for charging the spring		15				
m)	Whether indication of spring charged condition provided in control cabin		Yes				
n)	Make of Motor		KPT				
5	<b>DATA ON SF6 GAS</b>						
a)	Quantity of SF6 per pole	kg	2.5				
b)	Guaranteed maximum leakage rate	%/annum	Less than 1% per annum				
c)	Rated pressure of SF6 gas in operating chamber at 20	kg/cm2	6				
d)	Operating pressure range	kg/cm2	5.0 - 6.0				
f)	Capacity of SF6 gas cylinder	kg	9.8				
g)	Spare gas provided		20%				

Approved

General Manager (P&D)  
AEGCL

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DGM, O/o the G.M. (P&D)

Checked

ACM O/o the GM (P&D)

Checked by

Asstt. Manager  
O/o the G.M. (P&D)  
AEGCL, Narengi, Ghy-26

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LOA No. AEGCL / MD / Tech-1115/  
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General Manager (Non-EAP)  
O/o the MD, AEGCL





h) Whether breakers are dispatched filled with gas		Partially filled to 0.5 to 1 kg/cm <sup>2</sup> dispatched filled with gas for transportation & storage to be topped at site
i) Parameters of SF <sub>6</sub> gas		As per IEC-60376
j) Gas pressure settings at 20°C	kg/cm <sup>2</sup>	5.5 ± 0.3
i. Low pressure alarm at		
ii. Lockout pressure for	kg/cm <sup>2</sup>	5.0 ± 0.3
a) Opening	kg/cm <sup>2</sup>	5.0 ± 0.3
b) Closing		
<b>6 GENERAL DIMENSIONS</b>		
a) Over all Dimensions	mm	3900
i. Length	mm	850
ii. Width		
iii. Height	mm	4870 (With column height of 1667mm)
b) Weight of complete breaker for foundation design	kg	1450
c) Weight of each pole	kg	220
d) Weight of Mechanism + Housing + Base frame	kg	560
e) Weight of the heaviest part of the breaker	kg	560
f) Impact loading for foundation design	kg	2500
i. Downwards	kg	2500
ii. Upwards		
g) Cantilever strength - Horizontal	kg	125
ii. Cantilever strength - Vertical	kg	100
h) Seismic level	g	0.5
i) Minimum clearance in air		
i. Between live parts (phase to phase)	mm	1380
ii. Between phases (Centre to Centre)	mm	1700
iii. Live parts to earth	mm	1260
iv. Live parts to ground level including plinth of 300 mm	mm	As per GA drawing
j) Noise level distance of		
i. 0M from the breaker	db	< 140
ii. 50 M from the breaker	db	< 140
iii. 100M from the breaker	db	< 140
iv. 150M from the breaker	db	< 140
k) Packing Dimensions		
i. 3 in 1 multistacking packing case with baseframe	mm	3025X605X1550(H)
ii. Mechanism Housing Assy.(1 no in one case)	mm	1500 x 1050 x 1500 (H)
iv. Marshalling box (Total 1 no)	mm	NA
<b>7 CONSTRUCTIONAL DETAILS</b>		
a) Weight of absorbant per pole	gm	300
b) Whether arcing contacts are provided		Yes
c) Type and material of arcing contacts		Tulip, Copper-Tungsten
d) Type and Material of main contacts		Finger, Copper-Chromium
e) Whether main contacts are silver plated / Silver plating thickness		Yes / 25 microns
f) Contact pressure on main contacts	kg/ Sq mm	0.3
g) Length of contact separation	mm	90
h) Length of contact travel	mm	120
i) Rate of contact travel		
i. Opening	m/s	5-6
ii. Closing	m/s	2.8-3.6
j) Main contact resistance	μΩ	< 45
k) Whether the making & breaking contacts are hermetically sealed		Yes
i) No. of spare auxiliary contacts provided for Owner's use		2/8/10
i. Normally Open when breaker is open		2/8/10
ii. Normally Closed when breaker is open		2/8/10
m) Rated voltage of auxiliary contacts	V DC	220 110
n) Type of auxiliary contacts		Rotary CAM
o) Continuous Current Carrying Capacity	A	8 10
p) DC breaking current with 20 ms time constant	A	2
q) Whether auxiliary contacts are silver plated		Yes
r) Finish of exposed ferrous parts		Hardware are HDG/SS/DACRO
s) Finish paint		As per customer requirement
i. Offered to Domestic Customer's		Shade 631 of IS 5
t) Finish for Support Structure OR Columns		Hot Dip Galvanised
u) Make of support porcelain's		ARGILON-GERMANY/LIAONING SHUANGLING/FUSHUN HIGH TECH ELECTRIC/LILING HUAXIN/LILIN

Approved

General Manager (P&D)  
AEGCL

Checked

BGM, O/o the G.M. (P&D)

Checked

AGM O/o the GM (P&D)

Checked by

Asstt. Manager  
O/o the G.M. (P&D)  
AEGCL, Narengi, Ghy-26

Manju Rabha  
General Manager (Non-EAP)  
O/o the MD, AEGCL





# LIST OF DRAWINGS:

SR. NO.	LIST OF DRAWINGS/DOCUMENTS.	DRAWING NO.	TOTAL SHEET
1	LIST OF DRAWINGS	EH2-6617-00	1
2	GENERAL ARRANGEMENT	EH2-6617-01	1
3	SCHEMATIC DIAGRAM	EH2-6617-02	2
4	BILL OF MATERIAL	EH2-6617-03	1
5	RATING PLATE	EH2-6617-04	1
6	MECHANISM HOUSING ASSEMBLY	EH2-6617-05	1
7	TERMINAL CONNECTOR	MF32060	1

Cleared for manufacturing against  
LOA No. AEGCL / MD / Tech-1115/  
NFCON / Bordubi / 2023 / 37  
dtd. 13 / 02 / 2024

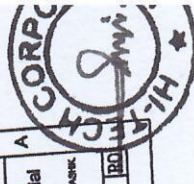
Manju Rabha  
General Manager (Non-EAP)  
O/o the MD, AEGCL

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CG Power and Industrial Solutions Limited

IF IN DOUBT ASKI

DRG.NO:EH2-6617-00

PROJECT		"Turnkey Construction of 132KV N.F. Railway Traction Bay at 132KV Khaloigaon GSS, AEGCL. Including Supply of Bay Equipment and line bay materials and associated works etc."	
LETTER OF ACCEPTANCE NO.		AEGCL/MD/TECH-1018/Depository/Khailoigaon/2022/23	
TITLE: LIST OF DRAWINGS		THIRD ANGLE PROJECTION	
CUSTOMER: ASSAM ELECTRICITY GRID CORPORATION LIMITED.		CG Power and Industrial Solutions Limited	
CONTRACTOR: HI-TECH CORPORATION		SWITCHGEAR DIVISION, AHMEDABAD, INDIA	
PO NO.: HIC/CG POWER/2022-23/KHALOIGAON BAY/052 DATED-19/09/2022		FOR: 145KV, 40 KA, SP-SP	
SCALE: N.T.S.		GCB TYPE: 120-SFM-40AA	
DATE: 01.10.22		DRG.NO:EH2-6617-00	
ALL DIMENSIONS ARE IN mm		7	
REVISION		8	
NO		1 / 1	






**Approved**

**General Manager (P&D)**  
**AEGCL**



Checked by  Asst. Manager  
O/o the G.M. (P&D)  
AEGCL, Narengi, Ghy-26

Checked by

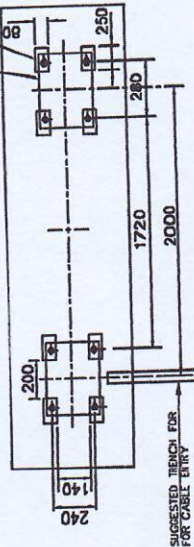
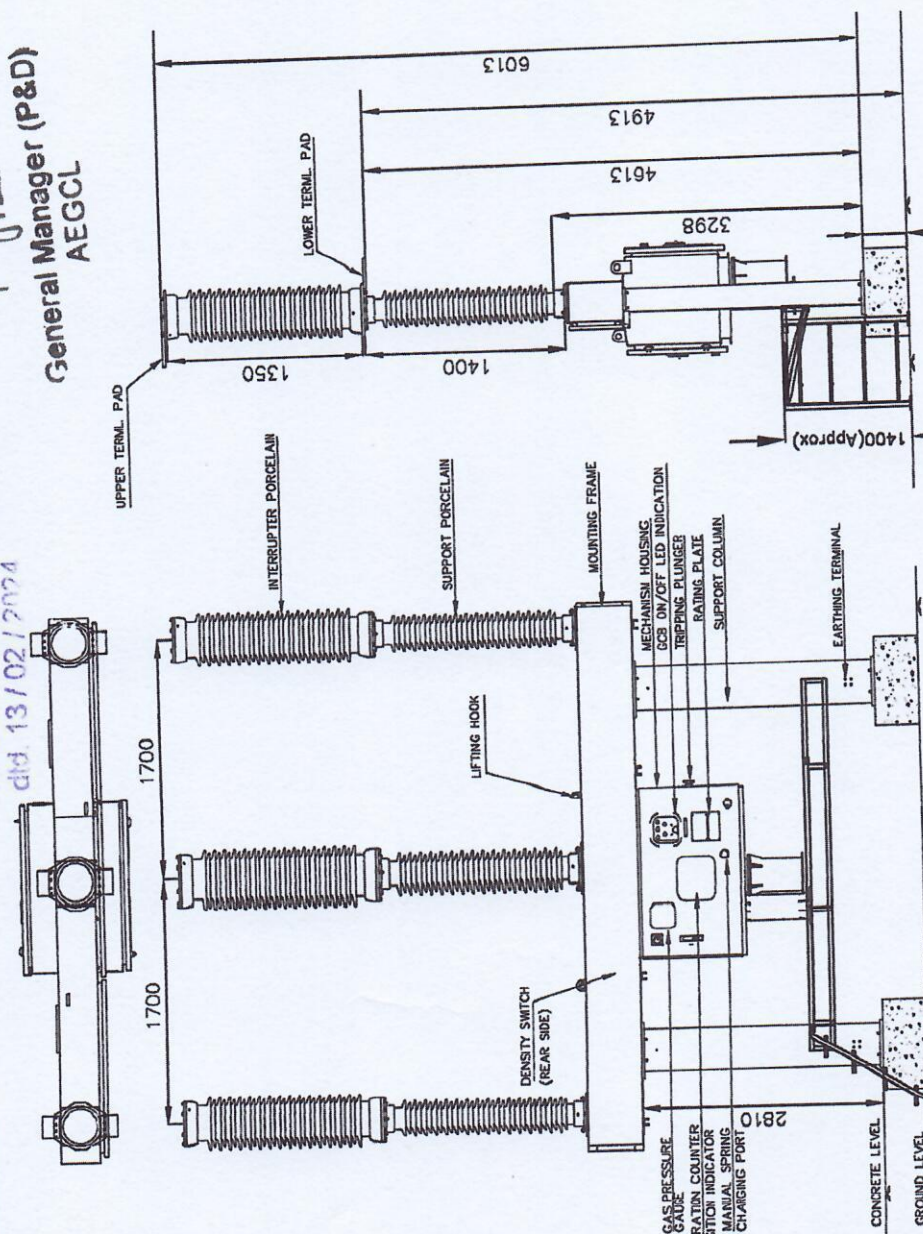
**Checked**

Did the GM (P81

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DRG.NO.:EH2-6617-01



## FOUNDATION DESIGN

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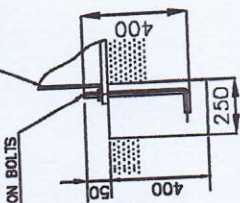
CUSTOMER: ASSAM ELECTRICITY GRID CORPORATION LIMITED.			
CONTRACTOR: HI-TECH CORPORATION			
PO NO.: HTC/CG POWER/2022-23/KHALIGAON BAY/052 DATED-19/09/2022			
ALL DIMENSIONS ARE IN mm			
4	5	6	

PROJECT	"Turnkey Construction of 132KV M.F. Railway Traction Bay at 132KV Khabigaon GSS, AEGCL including Supply of Bay Equipment and line bay materials and associated works etc."		
LETTER OF ACCEPTANCE NO.	AEGCL/INDITECH-1018/Deposit/CORE/Khabigaon/2022/29		
	Date: 05/09/2022		
TITLE: GENERAL ARRANGEMENT	THIRD ANGLE PROJECTION		
	 CG Power and Industrial Solutions Limited <small>GE SWITCH-GEAR DIVISION ISMARD, MUMBAI.</small>		
2 FOR: 145KV, 40 KA, SP-SP			
GCB TYPE: 120-SFM-40KA			
DWG NO: FH2-6617-01	1 / 181		

NOTE :-

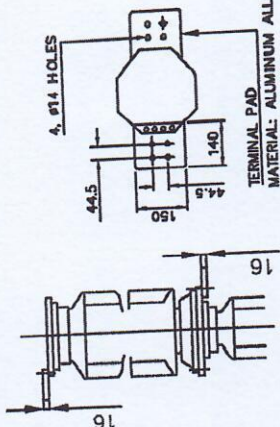
- 1) TOTAL WEIGHT:~1450 Kg.(APPROX.)  
2) TOTAL GAS WEIGHT :~7.5 Kg. (APPROX.)  
3) MAXIMUM SHOCK LOAD DURING OPERATION :~2000 Kg.  
4) FINISH : - ALL EXPOSED FERROUS PARTS ARE PAINTED/POWDER COATED WITH SHADE 631 of IS 5 : EXCEPT SUPPORT COLUMN  
5) CREEPAGE DISTANCE 3525 mm  
6) HARDWARES EXPOSED TO ATMOSPHERE ARE H.D.G./S.S./DACRO  
7) MAKE OF INSULATORS:MODERN/VEL/IEC/RAVIRAM/C/JI  
ARGILON -GERMANY/SARVANA(SIL)/LUNIONNG SHUANGJING/  
FUSHUNG HIGH TECH ELECTRIC/ LILING HUAXIN/HUAXIN/  
LILING PUKOU INSULATORS/PRAHMEASH CERAMICS/EG.  
8) OVERALL TOLERANCE ON DIMENSIONS IS 2%.

### DETAIL OF FOUNDATION BOLT



## SUPPORT STRUCTURE

**DETAIL. OF UPPER AND LOWER TERMINAL PADS**



TERMINAL PAD

NOTE: - CLEAN BOTH CONNECTING SURFACES OF TERMINAL PADS AND  
TERMINAL FLANGE WITH SAND PAPER AND COAT SUPPLIED COMPOUND  
BEFORE CONNECTING.

Checked

CGM, O/o the G.M.(P&D,

Manju Kabra  
General Manager (Non-EAP)  
O/o the MD, AEGCL









Checked	by the GM (P&D)
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GAS PRESS. SW. SETTING @ 20 deg C

PRESS. SW. SETTING

OFF	6 Kg/cm <sup>2</sup>
ON	OFF 5.5 Kg/cm <sup>2</sup> 5 Kg/cm <sup>2</sup>

Asst. Manager  
to the G.M. (P&D)  
AEGCL, Narengi, Ghy-26

PROJECT	"Turnkey Construction of 132KV N.F. Railway Traction Bay at 132KV Kholgaon GSS, AEGCL, including Supply of Bay Equipment and line bay materials and associated works etc."
LETTER OF ACCEPTANCE NO.	AEGCL/MDTECH-1019/Deposit/CORE/Kholgaon/20/22/23 Date-05/09/2022

TITLE: SCHEMATIC DIAGRAM	THIRD ANGLE PROJECTION
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**CG Power and Industrial  
Solutions Limited**

FOR: 145KV, 40 KA, SP-SP  
GCB TYPE: 120-SFM-40AA

DRG.NO:EH2-6617-02	2 / 2	R
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**ALL DIMENSIONS**

NAME	DATE	DATE: 01.1
3		

REVISION	2
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NO	1
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## SPRING CHARGING MOTOR CIRCUIT

**General Manager (P&E)**  
**AEGCL**

Checked

Cleared for manufacturing against  
LOA No. AEGCL/MD / Tech-1115/  
NFCON / Bordubi / 2023 / 37

DGM, O/o the G.M.(P&D)

INF.COM / BUILDING  
dtd. 13 / 02 / 2024

SPARE AUXILIARY CONTACTS (10NO+10NC)

**NOTE :**

- 1) BILL OF MATERIAL AS PER DRG. NO. EH2-6617-03
- 2) TERMLS. SHOWN \*Ø\* ARE WIRED UPTO TERMINAL BLOCKS
- 3) THIS DIAGRAM IS SHOWN IN THE FOLLOWING CONDITIONS.

- a) GCB OPEN
- b) SF6 GAS PRESSURE IS ZERO
- c) 43LR SWITCH IS IN REMOTE POSITION
- d) CONTROL & AUXILIARY SUPPLY IS NOT APPLIED
- e) CLOSING SPRING IS DISCHARGED

4) ON FAILURE OF SUPPLY TO MOTOR, ONE OPEN-CLOSE POSSIBLE.

**Checked by**

GAS PRESS. SW. SETTING @ 20 deg C

PRESS. SW. SETTING

OFF	6 Kg/cm <sup>2</sup>
ON	OFF 5.5 Kg/cm <sup>2</sup> 5 Kg/cm <sup>2</sup>

Asst. Manager  
to the G.M. (P&D)  
AEGCL, Narengi, Ghy-26

PROJECT	"Turnkey Construction of 132KV N.F. Railway Traction Bay at 132KV Kholgaon GSS, AEGCL, including Supply of Bay Equipment and line bay materials and associated works etc."
LETTER OF ACCEPTANCE NO.	AEGCL/MDTECH-1019/Deposit/CORE/Kholgaon/2022/23 Date-05/09/2022

TITLE: SCHEMATIC DIAGRAM		THIRD ANGLE PROJECTION



**CG Power and Industrial  
Solutions Limited**

FOR: 145KV, 40 KA, SP-SP  
GCB TYPE: 120-SFM-40AA

DRG.NO:EH2-6617-02	2 / 2	R
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**ALL DIMENSIONS**

NAME	DATE	DATE: 01.1
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REVISION	2
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NO	1
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dtd. 13 / 02 / 2024

SR. NO. : \*\*

**Approved**

# GAS CIRCUIT BREAKER

MADE IN INDIA

TYPE 120-SFM-40AA		STD. IEC62271-100	
RATED VOLTAGE	145 kV	RATED LIGHTNING IMPULSE	
RATED FREQUENCY	50 Hz	WITHSTAND VOLTAGE 650 kVp	
RATED NORMAL CURRENT	1250 A	RATED SHORT-CIRCUIT BREAKING CURRENTS 40 KA	
FIRST POLE TO CLEAR FACTOR	1.5	RAT.OPR.SEQ. 0-0.3SEC-CO-3MIN-CO	
RATED SF6 GAS PRESSURE(5.0 kg/cm <sup>2</sup> gAT 20C)		RATED SHORT-CIRCUIT MAKING CURRENT 100KA	
MASS OF SF6 GAS 7.5 Kg		POWER FREQUENCY WITHSTAND VOLTAGE : 275 kV(rms)	
RATED SHORT TIME CURRENT 40 KA FOR 3 SECONDS			

\* Shall be as per GTP.

IF IN DOUBT ASK!

DRG.NO.:EH2-6617-04

Checked by

Asstt. Manager  
the G.M. (P&D)

●/● the G.M. (P&D)  
AEGCL, Narengi, Ghy-26

**Manju Rabha**  
**General Manager (Non-EAP)**  
O/o the MD, AEGCL

## Choked

AGM O/o the GM (P&amp;D)

BGM. O/o the G.M. (P&D)

**Checked**

**NOTES: -**

MATERIAL: STAINLESS STEEL 1 mm THK/TRAFOLITE

\*\*YEAR OF MFG. : CURRENT YEAR

\*\* SR. NUMBER

General Manager (P&D)  
AT&T

SR.NO.	OF BREAKER	QTY.
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"Turkmen Construction of 132kV N.F. Railway Traction Bay at 132kV Khaloaon OSS, AEGCL including Supply of Bay Equipment and line bay materials and associated works etc."

AEGLI/INDUTECH-1018/Deposit/CORE/Khalelqaan/2022/29

Date-05/09/2022

**TITLE: RATING PLATE**

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FOR: 145KV, 40 KA, SP-SP

GCB TYPE: 120-SFM-40AA

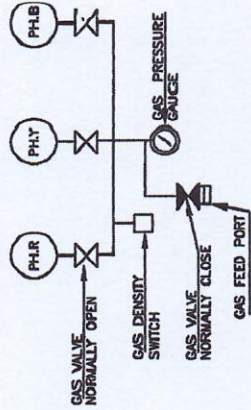
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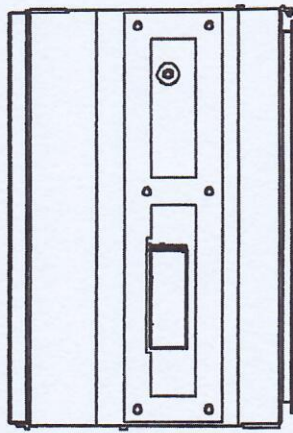
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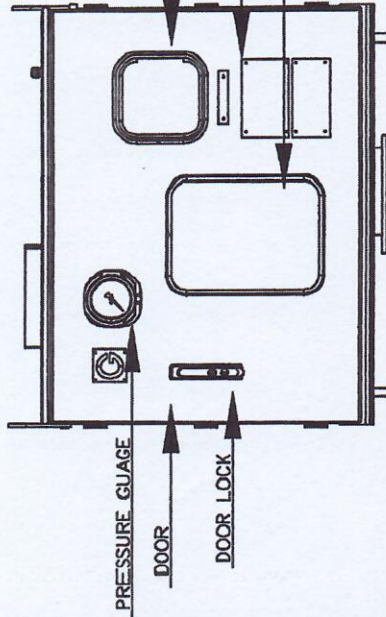
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LOA No. AEGCL / MD / Tech-1115/  
NFCN / Bordubi / 2023 / 37  
dtd. 13 / 02 / 2024



SINGLE LINE DIAGRAM FOR GAS SYSTEM



TOP VIEW



FRONT VIEW

Checked by

Assist. Manager

O/o the G.M. (P&D)

AEGCL, Narengi, Ghy-26

Checked

AGM O/o the GM (P&D)

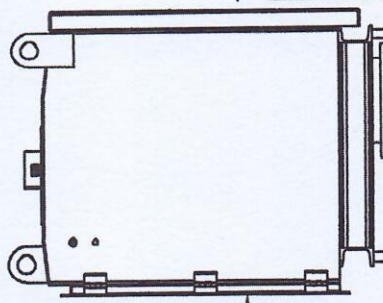
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DGM, O/o the G.M. (P&D)

Approved

General Manager (P&D)

FRONT VIEW  
(WITHOUT DOOR)



SIDE VIEW

FRONT SIDE

REAR SIDE

NOTES:-

1. THICKNESS OF DOOR 2mm AND HOUSING 3mm THK.
2. FINISHING SHADE 631 OF IS:5.
3. OVERALL TOLERANCE ON DIMENSIONS IS 2%.
4. DEGREE OF PROTECTION: IP55
5. THE COMPONENT LAYOUT IS FOR INDICATIVE PURPOSE ONLY. MAY CHANGE DURING MANUFACTURING STAGE.

Manju Rabha  
General Manager (Non-EAP)  
O/o the MD, AEGCL

PROJECT		"Turnkey Construction of 132kV N.F. Railway Traction Bay at 132kV Khaligson GSS, AEGCL including Supply of Bay Equipment and line bay materials and associated works etc."	
LETTER OF ACCEPTANCE NO.		AEGCL/MD/TECH-1018/Deposit/CORE/Khaligson/2022/29 Date: 05/09/2022	
TITLE: MECHANISM HOUSING ASSEMBLY		THIRD ANGLE PROJECTION	
FOR: 145KV, 40 KA, SP-SP		CG Power and Industrial Solutions Limited	
GCB TYPE: 120-SFM-40M		SWITCHGEAR DIVISION ISAMUD, MOORE	
DRG. NO: EH2-6617-05		1 / 1	

NO	REVISION	NAME	DATE	SCALE	N.T.S.	DATE: 01.10.22	ALL DIMENSIONS ARE IN mm
1							
2							
3							
4							
5							
6							
7							
8							

NAME	CUSTOMER: ASSAM ELECTRICITY GRID CORPORATION LIMITED.
DRN	CONTRACTOR: HI-TECH CORPORATION
CHD	PO NO.: HTC/CG POWER/2022-23/KHALIGSON BAY/052 DATED-19/09/2022
AGJ	
APPD	
GNP	
SCALE	N.T.S.



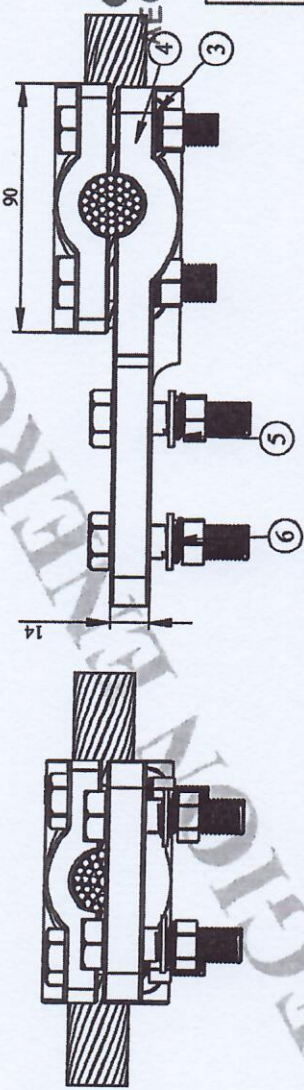
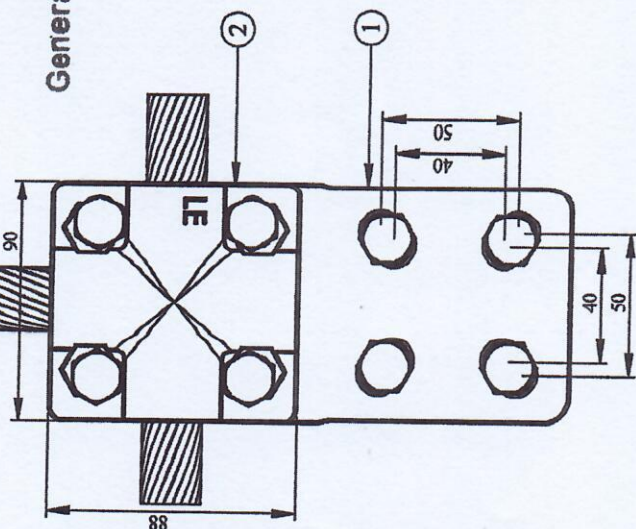
NOTE: ØC - ACSR PANTHER CONDUCTOR (Ø 21 mm)

Cleared for manufacturing against  
LOA No. AEGCL / MD / Tech-1115/  
NFCON / Bordubi / 2023 / 37  
dtd. 13 / 02 / 2024

Approved

General Manager (P&D)  
AEGCL

General Manager (P&D)  
AEGCL



- TECHNICAL DATA:
1. GENERAL TOLERANCE  $\pm 5\%$  UNLESS SPECIFIED
  2. ALL FERROUS PARTS ARE HOT DIP GALVANIZED AS PER IS: 2629/2633
  3. SPRING WASHERS ARE ELECTROGALVANIZED AS PER IS: 2629/2633
  4. APPLICABLE STANDARD - IS: 5561-2018
  5. CURRENT RATING: 600A
  6. SHORT TIME CURRENT RATING: 40 kA FOR 1 SEC.
  7. RATED VOLTAGE: 132/220 kV
  8. BOLT TIGHTENING TORQUE: 4 KG.M FOR M12 & 2.4 KG.M FOR M10.
  9. MINIMUM THICKNESS OF CURRENT CARRYING PARTS NOT LESS THAN 12.5 mm
  10. MAX. TEMPERATURE RISE AS PER IS.

Checked

DGM. O/o the G.M. (P&D)

Checked

Checked by AGM O/o the GM (P&D)

Manjiv Prabha  
General Manager (Non-EAP)  
O/o the MD, AEGCL

Asstt. Manager  
O/o the G.M. (P&D)  
AEGCL, Narengi, Ghy-26

TITLE:  
TERMINAL CONNECTOR FOR  
PAD TO ACSR PANTHER  
(Ø 21 mm) CONDUCTOR

DRAWN BY: PRAMOD  
CHECKED BY: BHANU  
APPROVED BY: SATISH  
ISSUED DATE: 24-11-2021  
FILE NAME: DST/CLAMPS/3D  
PART NO: MF32060

LEGION ENERGY PRODUCTS PVT. LTD.  
(Formerly known as Legion Energy)  
(AN ISO 9001 : 2015 COMPANY)  
Plot No: 61, 62 & 63, Obedanahalli Indl Area,  
KIADB Phase-III, 6th Road, Doddaballapur,  
Bangalore - 561 203  
Email: sales@legionenergy.com

ALL DIMENSIONS ARE IN mm  
PROJECTION:   
REV. NO: 01  
SCALE: NOT TO SCALE

ITEM NO.	DESCRIPTION	QTY.	MATERIAL
6	M 12 NBW	4	HDG STEEL, GR 5.6, IS:1367
5	M12 SPRING WASHER	4	SPRING STEEL, IS:4072/3062
4	M 10 NBW	4	HDG STEEL, GR 5.6, IS:1367
3	M10 SPRING WASHER	4	SPRING STEEL, IS:4072/3062
2	PLUS KEEPER(18-22)	1	ALUMINIUM ALLOY IS:617-1994, GR-4600(A6)
1	PAD CLAMP BODY (18-22)	1	ALUMINIUM ALLOY IS:617-1994, GR-4600(A6)

