

# GV3

up to 40.5kV

Medium Voltage Gas Insulated Switchgear



**TAMCO**

# GIS

Having manufactured vacuum switchgears since the early 1980's, Tamco has extended its product range to include Type GV3 and Type GV3D Gas Insulated Switchgear (GIS), which combines the superior insulation of SF<sub>6</sub> gas with the reliability of vacuum switching.

36kV Rated Voltage

170kVp Impulse Withstand Voltage

Up to 2500A Normal Current

25/31.5/40kA, 3 seconds, Short-circuit

Current Single-busbar (GV3) or Double-busbar

(GV3D) Compliance with IEC 62271-100/200,

IEC 62271-102, IEC 62271-1 Tested at KEMA



# KEY DESIGN FEATURES

Compact

Suitable for polluted environments

No fire risk

Superior SF6 gas insulation

Reliable vacuum circuit breaker (VCB)

Minimal maintenance

Easy installation

Generous space for cable terminations

Fully extensible



# CUBICLE

The cubicle is made out of heavy gauge steel sheets cut and welded using state of art laser and robotic techniques to obtain close manufacturing tolerances. Weld integrity and gas seals are extensively tested to ensure effective gas containment throughout the service life span of the switchgear.

Degrees of ingress protection, per IEC 60529

- IP65 for high voltage compartments
- IP41 for mechanism and low voltage compartments



## VACUUM CIRCUIT BREAKER

The switchgear incorporates a fixed VCB. The design emphasizes simplicity and minimum parts count for reliability, efficient heat dissipation and reduced maintenance.

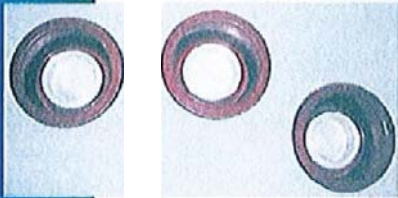


# SAFETY INTERLOCKS

For Tamco operator safety is utmost priority.  
Some of the safety interlocks are:

- Disconnecting switch cannot be operated if the VCB is closed;
- Disconnecting switch cannot be electrically operated if the manual operating handle is inserted;
- VCB cannot be operated either electrically or mechanically if the disconnecting switch handle is inserted;
- Earthing can only be effected through the circuit breaker.

## MAIN BUSBAR



The switchgear construction has an optional design based on plug-in type of main busbar system, hence allowing for complete *in-factory* assembly. This design further eliminates inconvenient and time consuming gas-filling process at sites.

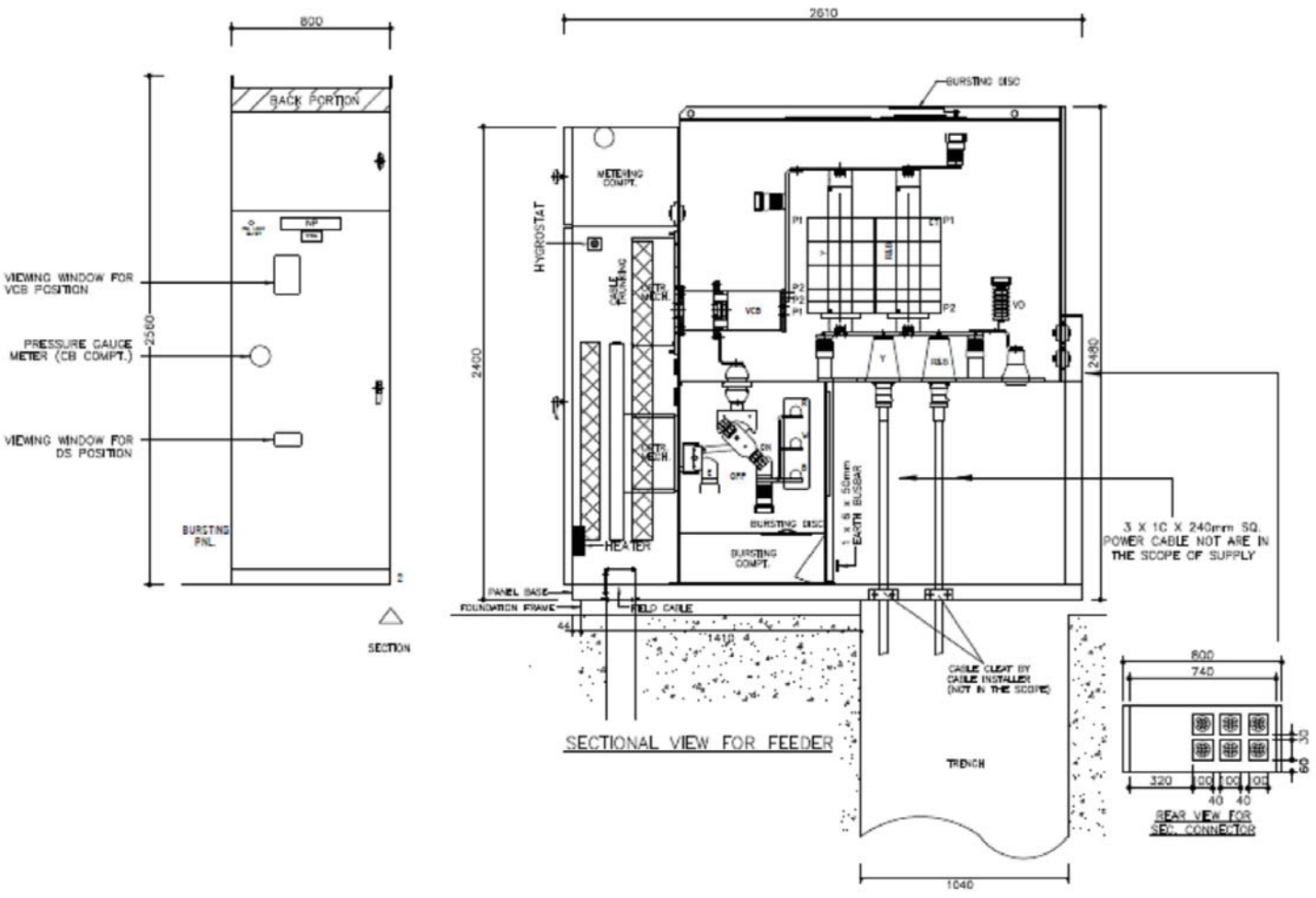
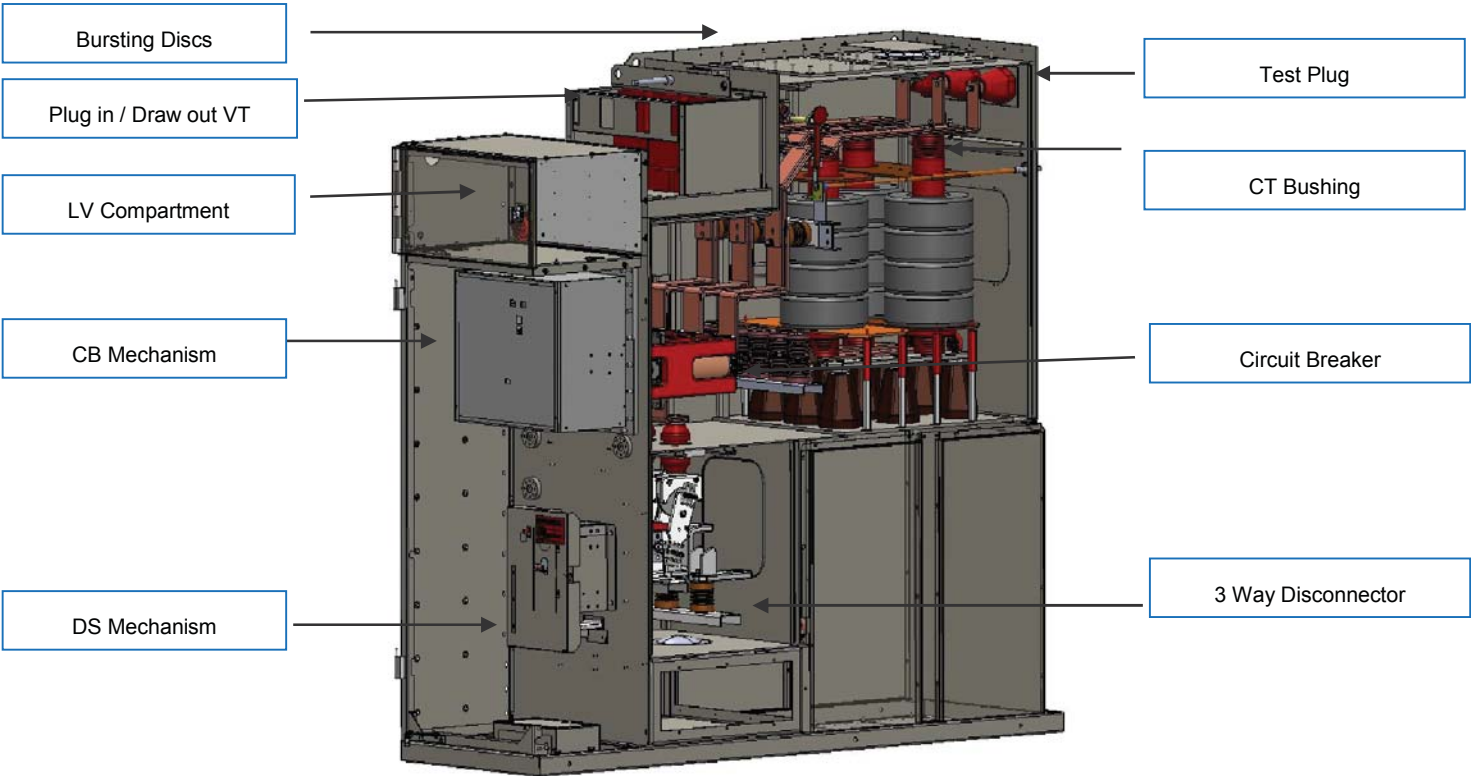


## CABLE TERMINATION



The switchgear is designed for use with plug-in type of cable terminations, for which purpose ample space is provided at a convenient height above floor level. The plug-in technique is an economical and proven method of cable termination. Multiple cables per phase can be accommodated.

# GENERAL LAYOUT



## TECHNICAL DETAILS

Model	30M25	30P25	30M32	30P32	30Q32	30P40	30Q40
Voltage (kV)	36-40.5						
Current (A)	1250	2000	1250	2000	2500	2000	2500
Frequency (HZ)	50 / 60						
Impulse withstand voltage (kVp)	170/195						
1 min. Power Frequency Voltage	70/80						
Operating Sequence	O-0.3 sec-CO-3 min-CO						
Short time withstand current (kA)	25		31.5			40	
Peak withstand current (kA)	62.5		80			100	
Width (mm)	600	800	600	800	800	800	800
Depth( mm)	2305	2610	2305	2610	2610	2610	2610
Height mm	2600						
Weight (excluding CT, VT, LV) Kg	1500	2000	2000	2000	2000	2000	2000
Opening Time (ms)	20-50						
Break Time	< 3 cycles						
Closing Time (ms)	30-60						
Rated Operating Pressure of SF6	1.35 bar absolute pressure at 20 <sup>o</sup> C						
Minimum Operating Pressure of SF6	1.20 bar absolute pressure at 20 <sup>o</sup> C						
Loss of Service Continuity	LSC2B						
Internal Arc Classification	AFLR						
Partition Class	PM						
Ingress Protection Class	IP65/IP4X						
Standard Complied	IEC 62271-200 IEC 62271-100 IEC 62271-102						



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**TAMCO**

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