# **TYPE GCH4V** COPPER CENTER BREAK VEE SWITCH





# Product Information

# **GCH4V Copper Center Break**

The GCH4V is a two insulator, side opening outdoor air disconnect switch constructed primarily of copper. Operation is accomplished by the rotation of two insulators making the center break switch the easiest operating of all group operated switches. Proven by years of field experience, this switch takes full advantage of unique construction methods to provide both simple operation and long-term dependability. The GCH4V is commonly used in three-phase line or substation applications such as transformer or line disconnecting, breaker isolating, bypassing or bus sectionalizing, Operation of the GCH4V may be accomplished by either manual control or by motor operator.

### Features

- *Testing.* The GCH4V has been tested to meet or exceed current IEEE standards. A test brochure outlining electrical and mechanical design tests conducted on the GCH4V is available upon request.
- Contacts. The GCH4V is supplied with line high pressure silver-to-silver jaw contacts producing the highest
  conductivity initially and over time. The contact fingers, fabricated from hard drawn copper, are silver plated and
  then electro-tin plated. The male contact, also of hard drawn copper, has a brazed silver overlay and then is electrotin plated. The methods and materials used in the application of the silver provide surfaces of differing hardness
  with anti-galling properties, resulting in minimal wear over years of operation
- *Bearings.* The GCH4V incorporates rugged switch bearings consisting of stainless-steel balls, stainless steel races, galvanized ductile iron bearing housing and rotors. Factory adjusted stops are provided with the bearing for ease of synchronization during installation.
- *Bases.* Hot dipped structural steel channel is used for the construction of the switch bases. Leveling studs are provided on the bearings for insulator alignment. Bases and base mounting dimensions can be customized to customer specifications and structure.
- *Hinge Contacts.* Transfer of the current at the hinge end of the blade is accomplished with a copper shunt that is formed and bolted in to place between the blades and terminal pad castings. The current transfer points of the shunt are silver plated before assembly.

### Accessories

- Grounding switch: Up to 164kA peak current
- Auxiliary Switches: Up to 16 contact decks are standard
- Outriggers: Custom designed for customer application
- Connectors: Can be added to customer switch order upon request

## **Load Break Devices**

- Arcing Horn: Minimum standard on all switches
- Quick Break Whips
  - TECORupters
  - Loop Split
  - Full Load



# Configurations



- DIMENSIONS SHOWN IN INCHES WEIGHT SHOWN IN POUNDS (INSULATORS INCLUDED)
- 8.3 72.5 kV 3" BOLT CIRCLE STATION POST INSULATORS
- 123 170 kV 5" BOLT CIRCLE STATION POST INSULATORS
- DIMENSIONS NOT FOR CONSTRUCTION PURPOSES
- CONTACT FACTORY FOR CERTIFIED PRINTS

CATALOG		DIMENSIONS		
NO.	Α	В	С	SIDMIG
GCH4V-00812	*	*	*	
GCH4V-00820	*	*	*	
GCH4V-01512	21 15/16	21 3/8	29	8 1/4 X 12
GCH4V-01520	*	*	*	8 1/4 X 12
GCH4V-02712	25 15/16	24 7/8	32 3/8	8 1/4 X 12
GCH4V-02720	25 15/16	26 3/4	*	8 1/4 X 12
GCH4V-03812	29 15/16	29 13/16	38 15/16	8 1/4 X 12
GCH4V-03820	29 15/16	30 3/16	*	8 1/4 X 12
GCH4V-04812	33 15/16	33 5/16	43 9/16	8 1/4 X 12
GCH4V-04820	58 1/6	33 11/16	*	8 1/4 X 12
GCH4V-07212	41 15/16	40 1/4	52 3/4	8 1/4 X 12
GCH4V-07220	41 15/16	40 5/8	*	8 1/4 X 12
GCH4V-12312	60 3/4	55 11/16	79 15/16	8 1/4 X 18
GCH4V-12320	60 3/4	56 5/16	76 1/2	8 1/4 X 18
GCH4V-14512	69 3/4	63 1/2	90 3/8	8 1/4 X 18
GCH4V-14520	69 3/4	64 1/8	87	8 1/4 X 18
GCH4V-17012	81 12	72 5/8	102 7/8	8 1/4 X 18
GCH4V-17020	81 12	73 1/4	99 3/8	8 1/4 X 18

\* Refer to factory.



# Numbering Sequence

GCH4	v	A	I	Р	TR	LB	ОР
	008	12	SIP	3		AH	N
	O15	20	SEP	5		QB	SH
	027		NA			LI	WG
	038		CS			N	MO
	048		INC		CHART	CS	Р
	072				CHART		SH-P
	123						
	145						
	170						
							WG-P

#### Variant Configuration Key

- V Voltage (kV)
- A Current (A)
- I Insulator Ship Method
- P Pivot Size (inches)
- TR Insulator TR
- LB Load Break Device
- **OP** Operator

#### **Insulator Shipping Methods**

- SIP SHIP IN PLACE
- **SEP -** SHIPPED SEPARATE
- NA INSULATORS NOT INCLUDED
- **CS** CUSTOMER SUPPLIED
- INC WITH INSULATORS BULKED PACKED

### Load Break Options

- AH ARCING HORN
- **QB** QUICK WHIPS
- N- NONE
- **CS -** CUSTOMER SUPPLIED
- LI TECORUPTERS OR OTHER
  - FL FULL LOAD
  - LS LOOP SPLIT

#### **Operator Options**

- N NONE SUPPLIED
- SH SWING HANDLE
- WG WORM GEAR
- **MO -** MOTOR OPERATOR
  - **P** MOTOR OP PROVISIONS
- SH-P MOTOR OP PROVISIONS SH
- WG-P MOTOR OP PROVISIONS WG

## Example: GCH4V-14512- SIP5288QBWG

VOLTA			
NOM	BIL	INSTR	
8.3	95	202	
15.5	110	205	
27	150	208	
38	200	210	
48.3	250	214	
72.5	350	216	
123	550	286	
145	650	288	
170	750	291	

CURRENT (A)					
CONT	PEAK MOM 3 SEC				
1200	99,000	61,000	38,000		
2000	164,000	100,000	63,000		



Notes:		



Notes:		





For product inquiries, please contact your local sales representative or customer service representative.

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