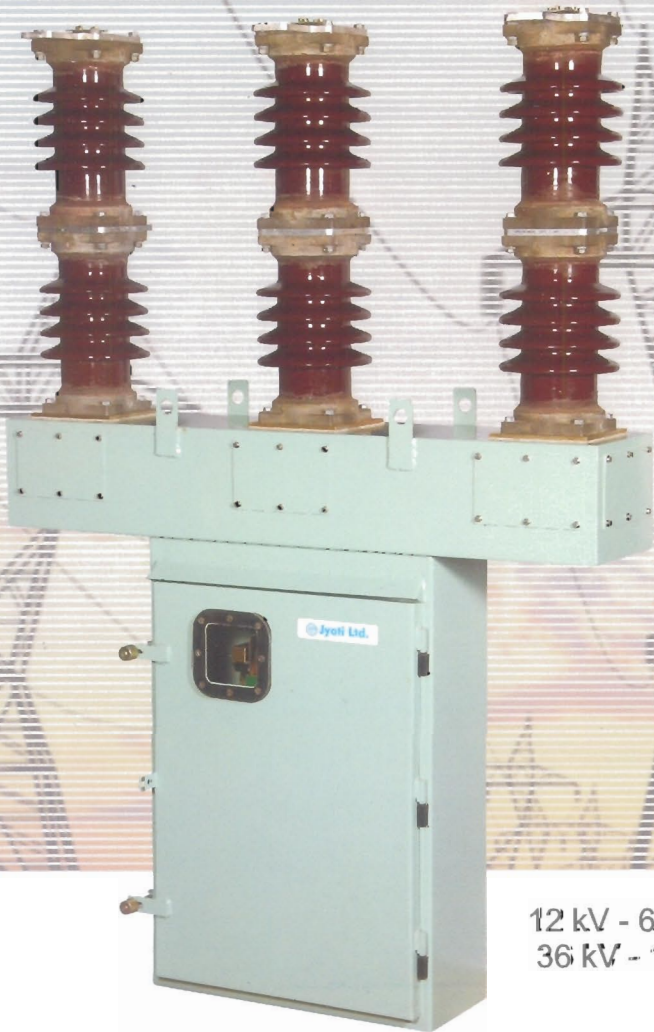




Jyoti Ltd.

Water • Power • Progress

'Jyoti' 12/36 kV Outdoor Porcelain Clad Vacuum Circuit Breaker



12 kV - 630 A/1250 A - 25 kA
36 kV - 1250/1600 A - 25 kA



SALIENT FEATURES

- Type tested as per IEC 62271
- Conforms IP55 degree of protection
- No fire - hazards
- Suitable for Auto Reclosing duty

INTRODUCTION

'Jyoti' Outdoor Vacuum Circuit Breakers type 'VK' & 'VY' are Outdoor structures mounted with easy-to-install Vacuum Circuit Breaker type 'VK' for use in 12 kV system & type 'VY' for use in 36 kV system.

CONSTRUCTIONAL FEATURES

The Porcelain-clad Outdoor type Vacuum Circuit Breaker has a separate vertical pole column for each phase. Adequate phase clearances and height have been provided as per the standards to ensure safe operation.

The pole column consists of upper and lower porcelain housings. The fixed contact of Vacuum Interrupter is connected with top terminal, while the moving contact is connected with lower terminal through flexible connector.

Special care has been taken in the mechanism cabinet to achieve easy access for the wiring and electrical inserts by providing swivel type chassis to house all the electrical inserts.

Three pole bushing assemblies are mounted on polebox structure, which, in turn, is supported on rigid angle structure.

Lower housing contains insulating rod suitable mechanically and electrically for 36 kV system. This rod connects the Vacuum Interrupter to Spring Operating Mechanism.

OPERATING MECHANISM

The Breaker is operated by Spring Operating Mechanism, type VK for 12 kV and VY for 36 kV, which is located below the polebox structure.

The spring can be charged electrically, by DC or AC, through rectifier by D.C. shunt PMDC motor and manually by charging handle.

The breaker gets charged immediately after the closing operation. This distinct feature enables the breaker to offer rapid auto reclosing duty. i.e. 0-0.3 Sec-CO-3 Min-CO. The charging time of the breaker is only 5 to 7 sec. So that the breaker can perform the special duty CO-15 Sec.-CO.

ACCESSORIES

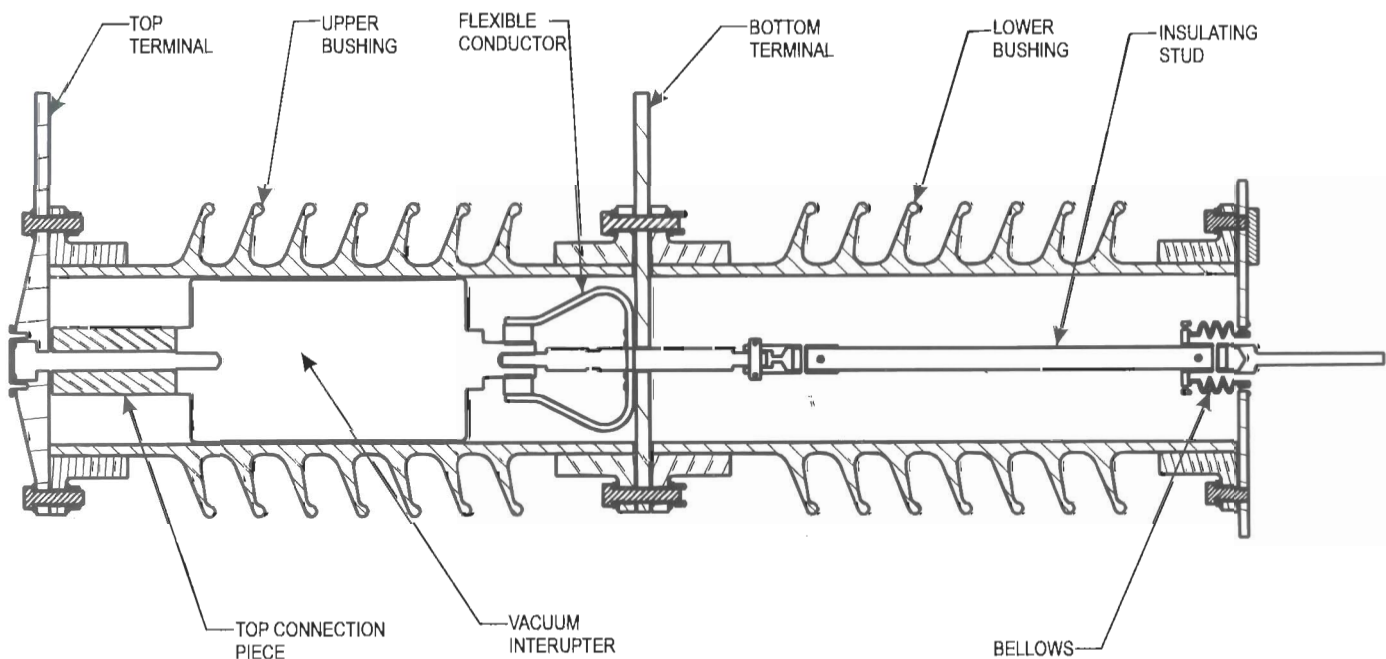
Following accessories can be provided

- a) Auxiliary Switch (7 NO + 7 NC)
- b) Closing Coil - 24,30,48,110,220V DC
- c) Tripping Coil - 24, 30, 48, 110, 220V DC

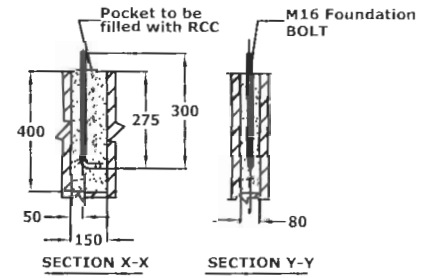
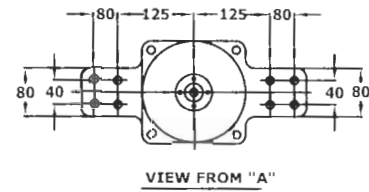
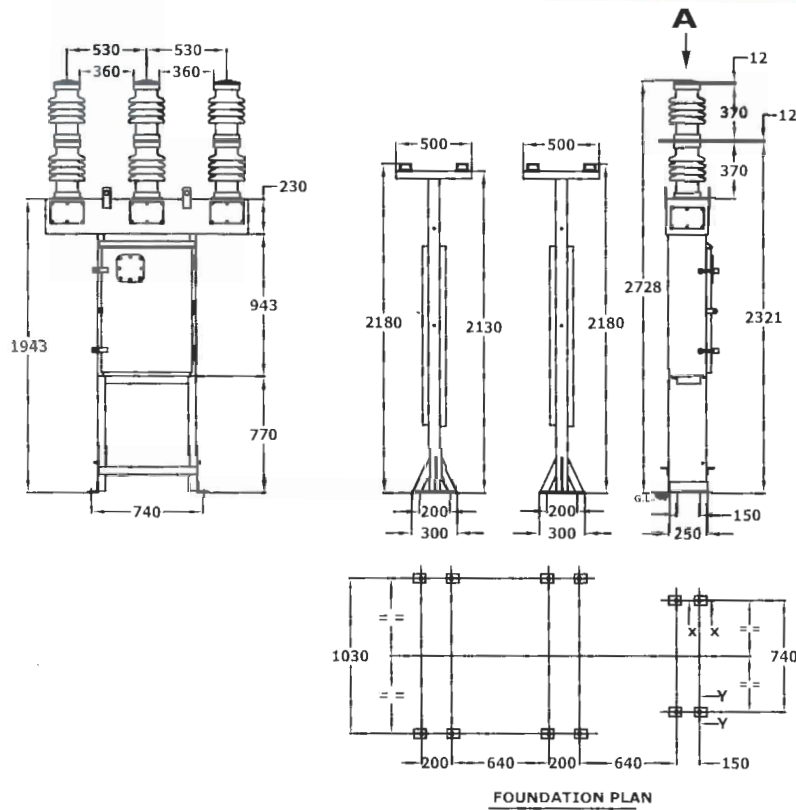
CURRENT TRANSFORMERS & POTENTIAL TRANSFORMERS

As required by the clients, the breaker can be supplied with extended structure for mounting Current and Potential Transformers.

SECTION VIEW OF POLE ASSEMBLY OF 'JYOTI' 36 kV OUTDOOR VCB

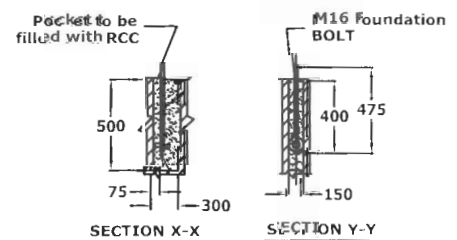
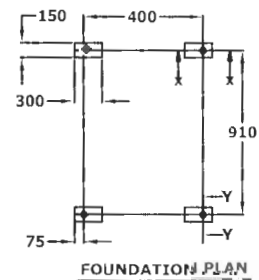
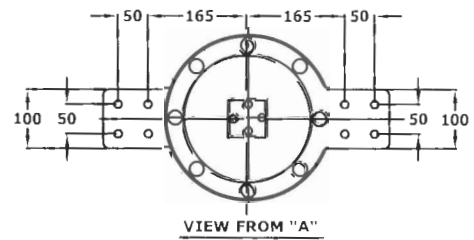
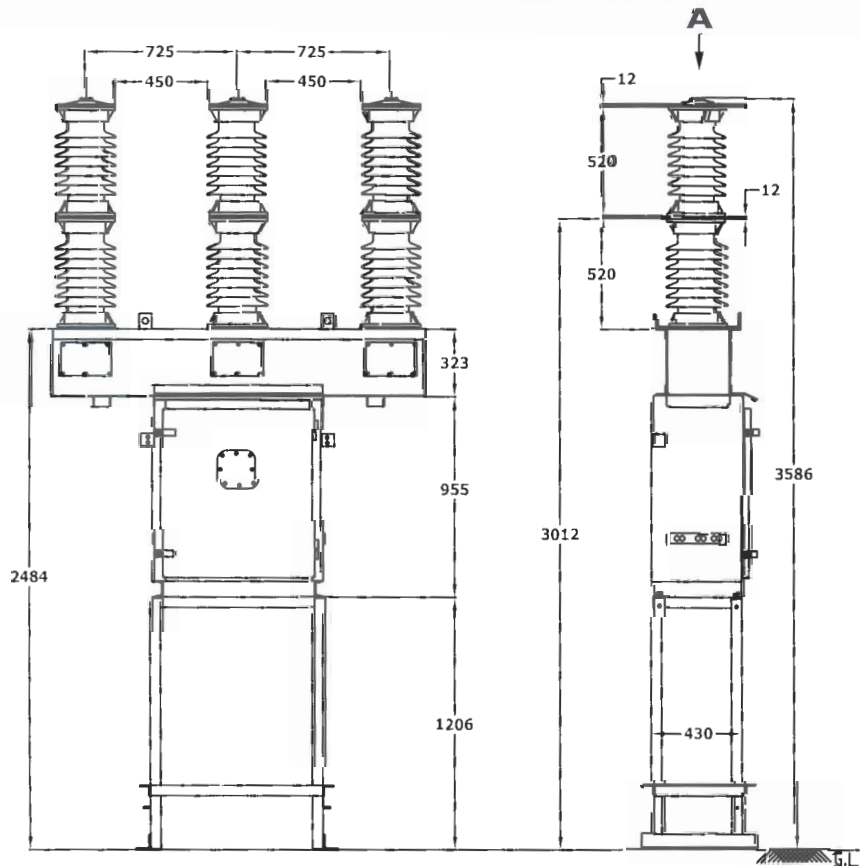


GENERAL ARRANGEMENT FOR 'JYOTI' 12KV OUTDOOR VCB (TYPE : VK-10M25D)



NOTE:-
 (1) - ALL DIMENSION ARE IN mm.
 (2) - PRODUCT IMPROVEMENT OR DEVELOPMENT IS A CONTINUOUS PROCESS & THE RIGHT IS RESERVED TO SUPPLY EQUIPMENT WHICH MAY VARY SLIGHTLY FROM THIS DRAWING.

GENERAL ARRANGEMENT FOR 'JYOTI' 36KV OUTDOOR VCB (TYPE : VY-30M25D)



NOTE:-
 (1) - ALL DIMENSION ARE IN mm.
 (2) - PRODUCT IMPROVEMENT OR DEVELOPMENT IS A CONTINUOUS PROCESS & THE RIGHT IS RESERVED TO SUPPLY EQUIPMENT WHICH MAY VARY SLIGHTLY FROM THIS DRAWING.

'JYOTI' OUTDOOR VACUUM CIRCUIT BREAKER - SPECIFICATIONS

Type	VY	VK
	30M25D	10M25D
Operating Method	Manual / Motor Spring Charge type	Manual / Motor Spring Charge type
Rated Voltage (kV)	36	12
Interrupting Current (kA)	25	25
Rated Normal Current (A)	1250 / 1600	630 / 1250
Rated Frequency (Hz)	50	50
Making Current (kA _p)	63	63
Short Time Current (kA) Rating For 3 Sec.	25	25
Max. Interrupting time (Cycles)	3.5	3.5
Max. Opening time (Cycles)	2.5	2.5
Max. Closing Time (Cycles)	2.5	2.5
Insulation Level Impulse kVp	170	75
Power Frequency Withstand Voltage (kV _{rms} / 1 Min)	70	28
Normal Operating Duty	0-3'-CO-3'-CO	0-3'-CO-3'-CO
Rapid Reclosing	0-0.3Sec.-CO-3'-CO	0-0.3Sec.-CO-3'-CO
Closing Coil Voltage (VDC)	24/30/48/110/220	24/30/48/110/220
Wattage (W) (Approx.)	450	450
Trip Coil Voltage (VDC)	24/30/48/110/220	24/30/48/110/220
Wattage (W) (Approx.)	450	450
Spring Charging Motor Voltage (VDC)	110/220	110/220
Wattage (W) (Approx.)	350 / 80	350 / 80
Weight (kG) (Approx.)	800	450




Jyoti Ltd. VADODARA (INDIA)
 Water • Power • Progress

FOR FURTHER ENQUIRIES
PLEASE CONTACT

BRANCH
OFFICES

SWITCHGEAR DIVISION

J/44-59, B.I.D.C., Gorwa,
 Vadodara-390 016 (India)
 Phone : 2280770 (5 lines)
 Fax : +91-265-2280153
 -2280208

E-Mail : switchgear@jyoti.com

Website : <http://www.jyoti.com>

• Ahmedabad : 406, Akshat Tower, Opp. Rajpath Club, Havmor Restaurant Lane, Bodakdev, Ahmedabad-380 054.
 Ph. : 079-26870980, Fax : 079-26871051, Email : ahmedabad@jyoti.com, jyotiahm@gmail.com
 • Bangalore : No. 94, 10th Cross, East Park Road, Malleswaram, Bangalore-560 020. Telefax : 080-23562248
 E-Mail : bangalore@jyoti.com
 • Chennai : VEE DEE YEM Complex, 1st Floor, 270, Lloyds Road, Royapettah, Chennai 600014. Ph. : 044-28131754.
 Fax : 044-28133178, E-Mail : chennai@jyoti.com
 • Indore : Office No. 502, 5th Floor, Capt. C.S. Naidu Arcade, Nr. Greater Kailash Hospital, Old Palasia, Indore
 452 001. Telefax : 0731-2542621. E-mail : indore@jyoti.com, jyotiindore@rediffmail.com
 • Kolkata : 45, Jhowtalla Road, Syed Amir Ali Avenue, Kolkata-700 019. Ph. : 033-22902056, 32487527
 Fax : 033-22875267, E-Mail : kolkata@jyoti.com
 • Mumbai : Narsinh Sadan, Flat No. 102, 1st Floor, 1st Road, Golibar, Santacruz (East), Mumbai-400 055.
 Ph. : 022-26134403 (D), 26122848, Fax : 022-26100717, E-Mail : mumbai@jyoti.com
 • New Delhi : 7, Jantar Mantar Road, New Delhi-110 001. Ph. : 011-23340576, Telefax : 011-23340205,
 E-mail : delhi@jyoti.com
 • Pune : 244, F. M. City Centre Building, Nalband Associates, Above Dena Bank, Mumbai-Pune Road,
 Chinchwad, Pune-411 019. Ph. : 020-27472676, Fax : 020-27473077, E-Mail : pune@jyoti.com
 • Secunderabad : 5-4-187/7, 1st Floor, Karbala Maidan, M.G. Road, Secunderabad - 500 003. Ph. : 040-27544587(D),
 27541698, Fax : 040-27543673, E-Mail : jyotisec@yahoo.com, jyotisec@jyoti.com

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