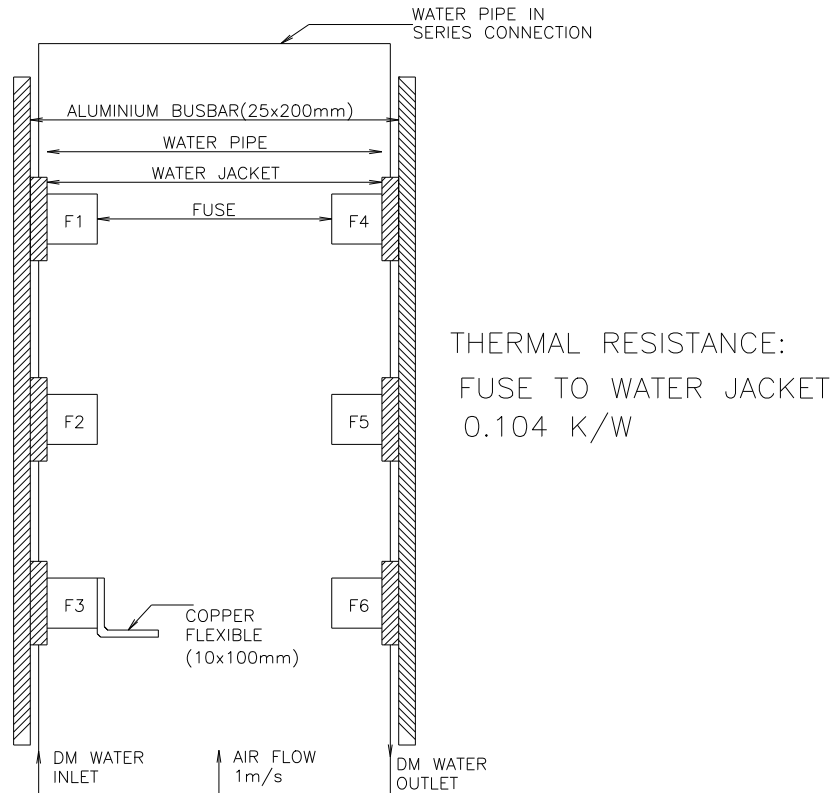


Purchase specification for semiconductor fuse with microswitch

- | | |
|----------------------------------|---|
| 1. APPLICATION | - HIGH CURRENT THYRISTOR CONVERTER FOR CAUSTIC SODA PLANT |
| 2. RATED DC OUTPUT CURRENT | - 2 X 17.5kA = 35kA (TWO SECONDARIES) |
| 3. RATED DC OUTPUT VOLTAGE | - 400VDC |
| 4. TYPE OF CONNECTION | - TWO SECONDARY BRIDGE CONNECTION |
| 5. NO. OF DEVICES IN PARALLEL | - 6 DEVICES IN EACH ARM |
| 6. NO. OF PULSES | - 2 X 6 = 12 PULSES |
| 7. OVER LOAD CAPACITY | - 150% FOR 60s ONCE in 24HRS |
| 8. N – 1 OPERATION | - REQUIRED |
| 9. DEVICE — $I^2 t$ /PIV | - 18 X 10 A ² s FOR 10ms/2800V |
| 10. DEVICE EXPLOSION RATING | - 140kA PEAK HALF SINE WAVE OF 15 ms WIDTH |
| 11. TOTAL MISSHARING OF CURRENT | - 25 % MAX. |
| 12. RECTIFIER INPUT AC VOLTAGE | - 368.5V +/- 10% AT 50 Hz |
| 13. TRANSFORMER IMPEDANCE | - 8% TOL. +/-10% |
| 14. SYSTEM SHORT CIRCUIT LEVEL | - 500MVA AT 6.6KV ON TRAF. PRIMARY SIDE |
| 15 TYPE OF COOLING | - SINGLE SIDE COOLING BY DM WATER |
| 16. TEMP. OF INLET COOLING WATER | - 45°C |
| 17. WATER FLOW | - 5 LPM |
| 18. SITE AMBIENT TEMP. | - 50°C |
| 19. AIR TEMP. INSIDE THE PANEL | - 65°C |
| 20. NO. OF STARTS/STOPS | - 2 PER WEEK |
| 21. CODE NO. | - CN4730177126 |

FUSE - WATER COOLING DETAILS ARE AS FOLLOWS

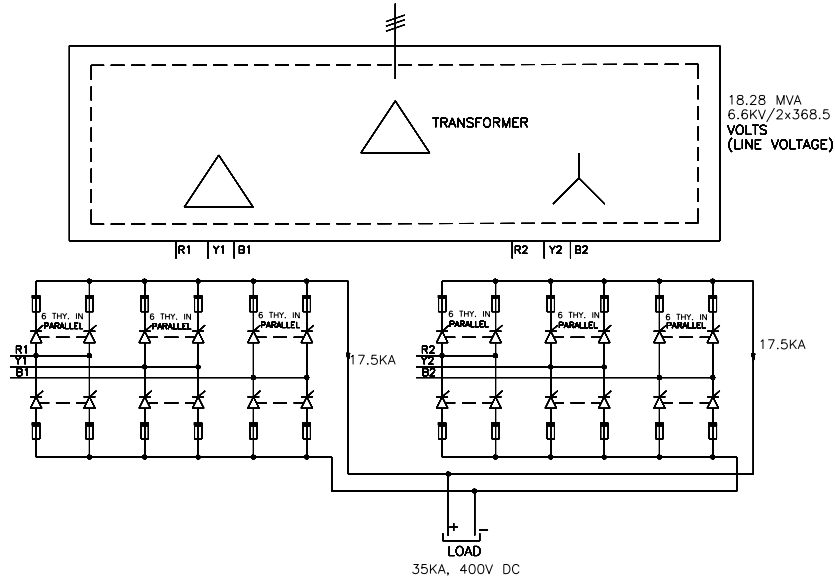


NOTE: -

1. THE FUSE SHOULD BE PREFERABLY SINGLE BODY TYPE.
2. MOUNTING HOLES TO BE SPECIFIED.
3. SUITABLE ADAPTER AND MICROSWITCH WITH ONE CHANGE OVER CONTACTS TO BE PROVIDED.




Purchase specification for semiconductor fuse with microswitch

4. FUSE SHOULD BE SELECTED IN SUCH A WAY THAT THE THYRISTOR WILL NOT EXPLODE FOR ANY OF THE FAULTS
5. THE FOLLOWING TECHNICAL INFORMATION SHALL BE PROVIDED ALONG WITH QUOTATION:
 - 5.1 SELECTION PROCEDURE FOR RATING OF THE FUSE FOR THIS APPLICATION ALONG WITH VARIOUS CORRECTION FACTORS ASSUMED.
 - 5.2 TEST CERTIFICATE FOR SHORT CIRCUIT TEST FOR SELECTED FUSE/EQUIVALENT. IN CASE BOTH SINGLE AND DOUBLE BODY TYPES ARE AVAILABLE, BOTH SHALL BE OFFERED. PREFERENCE WILL BE GIVEN FOR LOW POWER LOSS FUSES WITHOUT A VALID TEST CERTIFICATE OFFER WILL NOT BE ACCEPTED.
 - 5.3 CHARACTERISTIC CURVES FOR SELECTED FUSE AND DIMENSION DRAWING.



TRANSFORMER DETAILS

Number of HV	: 1 (Delta)
HV Voltage	: 6.6kV ±10%, 3φ, 50HZ, ±5%
System Fault Level	: 500MVA
Primary MVA	: 18.28MVA
Number of Secondary	: 2 (Delta & Star)
LV Voltage	: 2 * 368.5V (Line to Line)
Mis shearing between 2 LV Sets	: 5%
Secondary MVA	: 2*9.14 MVA
Percentage Impedance	: 8% , TOL. +/- 10%

	Name	Signature	
Prepared by	Manoj Kumar		Specification no: CEE/13004
Checked by	Ajay Dhote		Revision no:00
Approved by	A. Mitra		
Date	09.12.13		Date of revision: