

SURGE PROTECTION DEVICES (SPD)

SURGE ARRESTERS ARE SELECTED DEPENDING UPON THE LOAD TO BE PROTECTED AND FROM WHICH TYPE OF SURGE:

A. FROM LIGHTNING CURRENT (10/350): THESE ARE HIGHLY DANGEROUS AND MAY COUPLE THROUGH THE POWER LINE DURING RAINY SEASON OR DURING LIGHTNING DISCHARGES AND MAY DESTROY ALL THE SOPHISTICATED ELECTRICAL AND ELECTRONIC EQUIPMENTS. FOR THIS WE HAVE TO USE A 10/350 CLASS B TYPE LIGHTNING ARRESTER OF MIN. DISCHARGE CAPACITY 30KA AND ABOVE. THIS ARRESTER SHOULD BE INSTALLED IF EXTERNAL LIGHTNING ARRESTER OR LIGHTNING ROD IS NOT INSTALLED IN THE BUILDING AND SHOULD BE INSTALLED AT THE MAIN INCOMING LV PANEL AFTER THE FUSE OR MAIN DISTRIBUTION BOARD.

B. FROM SWITCHING SURGES (8/20): THESE SURGES ARE MORE HARMFUL AND ARE MORE COMMON WHICH ATTACK OUR EQUIPMENTS DAILY AT THE TIME OF SWITCHING OPERATIONS OF SUB-STATION, TRANSFORMER, MOTOR, PUMP, AIR-CONDITIONING UNITS, WELDING MACHINES, ETC. HENCE TO AVOID THAT WE HAVE TO USE 8/20 CLASS C TYPE ARRESTER OF MAX. DISCHARGE CAPACITY MIN. 20KA (8/20) AND SHOULD BE INSTALLED AT THE SUB PANELS OR SUB-DISTRIBUTION BOARDS.

C. PRECISION SAFETY: FURTHER THERE ARE LOT MORE EQUIPMENT WHICH OPERATE AT 12V TO 110V LESSER THAN THE INCOMING SUPPLY VOLTAGE, HENCE WE HAVE TO INSTALL CLASS D TYPE SURGE ARRESTER DEPENDING UPON THE VOLTAGE PROTECTION LEVEL OR INPUT VOLTAGE OF THE EQUIPMENT TO BE PROTECTED AND TYPE OF INTERFACE.

THESE CLASS D TYPE SURGE ARRESTERS ARE ALSO AVAILABLE FOR DATA, SIGNAL, AND COMMUNICATION EQUIPMENTS. ETC. AND HAVE RJ11, RJ45, BNC, UHF, N, THN, L9, CC4, FL10, ETC. SUITABLE FOR TELEPHONE, VIDEO, ANTENNA, CABLE, V-SAT, CCTV, SECURITY SYSTEMS, SATELLITE COMMUNICATION SYSTEMS, MODEMS, ROUTERS, ETC.

One thing should be clear that for any electrical installation good earthing is necessary and also due care should be taken for equipotential bonding.