

# ELECTRICAL EQUIPMENT FOR HAZARDOUS ATMOSPHERES

## CLASS I (GAS OR VAPOR)

### GROUP:

- A – ACETYLENE
- B – HYDROGEN, MANUFACTURED GASES
- C – ETHYL – ETHER, ETHYLENE, CYCLE-PROPOANE
- D – GASOLINE, HEXANE, NAPHTHA  
BENZINE, BUTANE, PROPANE, ALCOHOL,  
LACQUER SOLVENT VAPORS, NATURAL GAS

### DIVISION I

HAZARD OF FIRE OR  
EXPLOSION IS PRESENT  
NORMALLY

MOTORS MUST BE EXPLOSION  
PROOF WITH UNDERWRITER'S  
LABEL

### DIVISION II

HAZARD OF FIRE OR  
EXPLOSION IS PRESENT  
ONLY AS A RESULT OF AN  
ACCIDENT

MOTORS:  
SQ. CAGE MAY BE  
(a) DRIPPROOF  
(b) TEFC

**\*\*IMPORTANT NOTE:** THIS DATA IS GREATLY CONDENSED.  
IT SHOULD, HOWEVER CLAIRFY MANY QUESTIONS  
REGARDING EXPLOSION-PROOF EQUIPMENT.

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## CLASS II (HAZARDOUS DUSTS)

### GROUP:

- E- METAL DUST (SPECIAL SEALS)
- F - CARBON BLACK, COAL OR COKE DUST
- G - FLOUR, STARCH OR GRAIN DUST

### DIVISION I

HAZARD IS ALWAYS  
PRESENT DUE TO NORMAL  
CONDITIONS  
(DUST SUSPENDED IN THE  
ATMOSPHERE)

MOTORS MUST BE EXPLOSION  
PROOF WITH UNDERWRITER'S  
LABEL

### DIVISION II

- (a) WHERE DUST DEPOSITS  
ON ELEC. EQUIP. PREVENT  
SAFE HEAT DISSIPATION
- (b) WHERE DEPOSIT OR  
DUST MIGHT BE IGNITED  
BY ARCS, OR BURNING MATERIAL

MOTORS:  
SQ. CAGE MAY BE  
(a) TEFC  
(b) EXTERNALLY VENTILATED

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## CLASS III

FIBERS EASILY IGNITABLE BUT NOT  
APT TO BE SUSPENDED IN AIR TO PRODUCE  
IGNITABLE MIXTURES

EXAMPLES:

RAYON, NYLON, COTTON, SAW DUST, OR WOOD CHIPS

MOTORS:  
SQ. CAGE MAY BE  
(a) TEFC  
(b) EXTERNALLY VENTILATED

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IT SHOULD, HOWEVER CLAIRFY MANY QUESTIONS  
REGARDING EXPLOSION-PROOF EQUIPMENT.