



Appendix C

UL Class, Group & Temperature Codes

Hazardous Location Definitions *

- HAZARDOUS LOCATION:** An area where the possibility of explosion and fire is created by the presence of flammable gases, vapors, dusts, fibers or flyings.
- DIVISION 1** Division 1 in the normal situation; the hazard would be expected to be present in everyday production operations or during frequent repair and maintenance activity.
- DIVISION 2** Division 2 in the abnormal situation; material is expected to be confined within closed containers or closed systems and will be present only through accidental rupture, breakage or unusual faulty operation.
- CLASS I** Those areas in which flammable gases or vapors may be present in the air in sufficient quantities to be explosive or ignitable.
- CLASS II** Those areas made hazardous by the presence of combustible dust.
- CLASS III** Those areas in which there are easily ignitable fibers or flyings present, due to type of material being handled, stored or processed.

GROUPS	The gases and vapors of Class I locations are broken into four groups by the codes A, B, C and D. These materials are grouped according to the ignition temperature of the substance, its explosion pressure and other flammable characteristics.	Group A	Acetylene
		Group B	Hydrogen
		Group C	Ethyl-Ether, Ethylene, Cycle Propane
		Group D	Gasoline, Hexane, Naptha, Benzene, Butane, Propane, Alcohol, Lacquer Solvent Vapors, Natural Gas
	Class II - dust locations - groups E, F & G. These groups are classified according to the ignition temperature and the conductivity of the hazardous substance.	Group E	Metal Dust
		Group F	Carbon Black, Coal, Coke Dust
		Group G	Flour, Starch, Grain Dust

OPERATING TEMP. CODES	Maximum Temperature		Temperature Code	Notes
	Degrees C	Degrees F		
	450	842	T1	1) T1, T2 & T6 not offered by USEM
	300	572	T2	
	280	536	T2A	2) T1 through T2D not applicable to Class II locations.
	260	500	T2B	
	230	446	T2C	3) T2A through T2D, Class I Group D only.
	215	419	T2D	
	200	392	T3	
	180	356	T3A	
	165	329	T3B	
	160	320	T3C	
	135	275	T4	
	120	248	T4A	
	100	212	T5	
	85	185	T6	

- NOTES**
- 1) USEM offers Class I and Class II only. USEM does not offer Group A or B.
 - 2) Group C available on 5800 Frame.
 - 3) Refer to Base List Price Section for available ratings.
 - 4) Orders for Explosionproof Motors must specify Division, Class, Group and Temperature Code.

* These are simplified definitions - refer to National Electrical Code (NEC), Article 500 for complete definitions.