

**ATEX/IECE<sub>x</sub> REFERENCE**

Area Classification (IEC 60079)		
Usage area in the presence of GAS	Usage area in the presence of COMBUSTIBLE DUSTS	Hazardous level of the operational ZONE
Zone 0	Zone 20	Explosive atmosphere ALWAYS PRESENT
Zone 1	Zone 21	PROBABLE explosive atmosphere
Zone 2	Zone 22	Explosive atmosphere IMPROBABLE

Equipment Categories (IEC 60079)			
PROTECTION LEVEL guaranteed by the equipment Category	MINE (Group I)	SURFACE Gas (Group II)	SURFACE Dust (Group II)
Very High	M1	1G	1D
High	M2	2G	2D
Normal	not provided	3G	3D

Protection mode related to Zones (IEC 60079)				
Explosive Atmosphere	Danger Zone	Protection guaranteed	Protection Mode	EPL
ALWAYS PRESENT	0	Very High	IEC EN 60079-26	Ga
PROBABLE	1	High	Ex db Ex db eb Ex eb	Gb
IMPROBABLE	2	Normal	Ex nA Ex ec	Gc
ALWAYS PRESENT	20	Very High	Ex ta	Da
PROBABLE	21	High	Ex tb - IP6x	Db
IMPROBABLE	22 Conductive Dusts	Normal	Ex tb - IP6x	Db
IMPROBABLE	22 Non-Conductive Dusts	Normal	Ex tc - IP5x	Dc

**TEMPERATURE CLASSIFICATION**

IEC 60079 Group II	Max Surface Temp.	NEC 500/CEC	NEC 505/CEC
T1	450° C (842°F)	T1	T1
T2	300° C (572°F)	T2	T2
	280° C (536°F)	T2A	
	260° C (500°F)	T2B	
	230° C (446°F)	T2C	
T3	215° C (419°F)	T2D	T3
	200° C (392°F)	T3	
	180° C (356°F)	T3A	
	165° C (329°F)	T3B	
T4	160° C (320°F)	T3C	T4
	135° C (275°F)	T4	
T5	120° C (248°F)	T4A	T5
	100° C (212°F)	T5	
T6	"85° C (185°F)"	T6	T6

N.B.: For Group I (IEC/IECE<sub>x</sub>) applications, fixed temperature limits shall be considered i.e. 170°C



Flameproof  
Motors

**NEC REFERENCE**

Area Classification (NEC 500/505/CEC)		
North America NEC 500/CEC	NEC 505/CEC	Hazardous level of the operational ZONE
Class I, Division 1	Zone 0	Continuous Hazard (GAS)
	Zone 1	Intermittent Hazard (GAS)
Class I, Division 2	Zone 2	Hazard under Abnormal Conditions (GAS)
Class II, Division 1	Zone 20	Continuous Hazard (COMBUSTIBLE DUST)
	Zone 21	Intermittent Hazard (COMBUSTIBLE DUST)
Class II, Division 2	Zone 22	Hazard under Abnormal Conditions (COMBUSTIBLE DUST)

Protection mode related to Zones (NEC 500/505/CEC)			
Standard	Danger Zone	Protection Mode	EPL
NEC 500	Class I, Division 1	Groups A, B, C, D	-
NEC 500	Class I, Division 2	Groups A, B, C, D	-
NEC 500	Class II, Division 1	Groups E, F, G	-
NEC 500	Class II, Division 2	Groups E, F, G	-
NEC 505	Class I, Zone 1	AEx db	Gb
NEC 505	Class I, Zone 2	AEx nA	Gc
NEC 506	Zone 21	AEx tb - IP6x	Db
NEC 506	Zone 22	AEx tc - IP5x	Dc

N.B.: Equipment of an higher category can be installed in place of a lower category

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