



## IEC Utilization Categories (Explanation)

<b>IEC Utilization Categories</b>				
Voltage	Category	Typical Applications	IEC Product Standard 3	
A.C.	AC-1	Non Inductive or slightly inductive loads, example: resistive furnaces, Heaters	947-4	
	AC-2	Slip-ring motors: switching off		
	AC-3	Squirrel-cage motors: starting, switches off motors during running time <i>Most typical industrial application for motors</i>		
	AC-4	Squirrel-cage motors: starting, plugging (1), inching (2)		
	AC-5a	Switching of electric discharge lamps		
	AC-5b	Switching of incandescent lamps		
	AC-6a	Switching of transformers		
	AC-6b	Switching of capacitor banks		
	AC-7a	Slightly inductive loads in household appliances: examples: mixers, blenders		
	AC-7b	Motor-loads for household appliances: examples: fans, central vacuum		
	AC-8a	Hermetic refrigerant compressor motor control with manual resetting overloads		
	AC-8b	Hermetic refrigerant compressor motor control with automatic resetting overloads		
	AC-12	Control of resistive loads and solid state loads with opto-coupler isolation		947-5
	AC-13	Control of solid state loads with transformer isolation		
	AC-14	Control of small electromagnetic loads		
A.C. and D.C.	AC-15	Control of A.C. electromagnetic loads	947-3	
	AC-20	Connecting and disconnecting under no-load conditions		
	AC-21	Switching of resistive loads, including moderate loads		
	AC-22	Switching of mixed resistive and inductive loads, including moderate overloads		
	AC-23	Switching of motor loads or other highly inductive loads		
	A	Protection of circuits, with no rated short-time withstand current		947-2
B	Protection of circuits, with a rated short-time withstand current			
D.C.	DC-1	Non Inductive or slightly inductive loads, resistance furnaces, heaters	947-4	
	DC-3	Shunt-motors, starting, plugging(1), inching(2), dynamic breaking of motors		
	DC-5	Series-motors, starting, plugging(1), inching(2), dynamic breaking of motors		
	DC-6	Switching of incandescent lamps		
	DC-12	Control of resistive loads and solid state loads with opto-coupler isolation		
	DC-13	Control of D.C. electromagnetics	947-5	
	DC-14	Control of D.C. electromagnetic loads having economy resistors in the circuit		
	DC-20	Connecting and disconnecting under no-load conditions		
	DC-21	Switching of resistive loads, including moderate overloads	947-3	
	DC-22	Switching of mixed resistive and inductive loads, including moderate overloads (i.e. shunt motors)		
DC-23	Switching of highly inductive loads (i.e. series motors)			

(1) Plugging - Stopping a motor rapidly by reversing the incoming power connections.

(2) Inching - Energizing a motor repeatedly for short periods to obtain small incremental movements.