



IEC Utilization Categories (Explanation)

IEC Utilization Categories			
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	
	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.C. and D.C.	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	947-5
	DC-13	Control of D.C. electromagnetics	
	DC-14	Control of D.C. electromagnetic loads having economy resistors in the circuit	
	DC-20	Connecting and disconnecting under no-load conditions	947-3
	DC-21	Switching of resistive loads, including moderate overloads	
	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.