



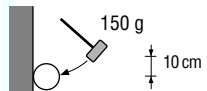

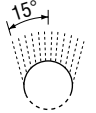
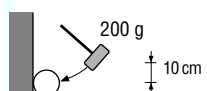

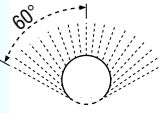
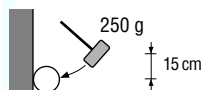

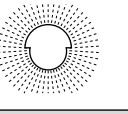
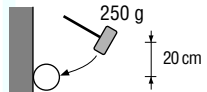

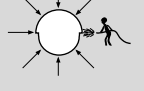
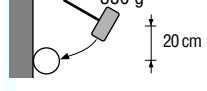
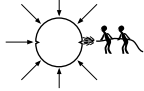
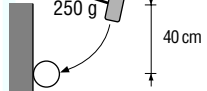
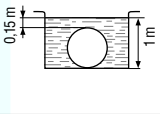
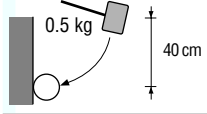
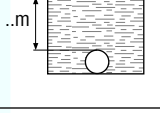
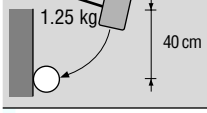
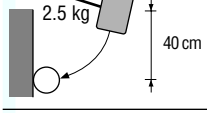
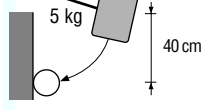
# Induction motors

## Definition of "Index of protection" (IP)

Indices of protection of electrical equipment enclosures  
Conforming to IEC standard 34-5 - EN 60034-5 (IP) - EN 50102 (IK)

LS motors are  
IP 55 / IK 08 as standard

A

First number : protection against solid objects			Second number : protection against liquids			mechanical protection		
IP	Tests	Definition	IP	Tests	Definition	IK	Tests	Definition
0		No protection	0		No protection	00		No protection
1		Protected against solid objects of over 50 mm (eg : accidental hand contact)	1		Protected against vertically dripping water (condensation)	01		Impact energy : 0.15 J
2		Protected against solid objects of over 12 mm (eg : finger)	2		Protected against water dripping up to 15° from the vertical	02		Impact energy : 0.20 J
3		Protected against solid objects of over 2.5 mm (eg : tools, wire)	3		Protected against rain falling at up to 60° from the vertical	03		Impact energy : 0.37 J
4		Protected against solid objects of over 1 mm (eg : small tools, thin wire)	4		Protected against water splashes from all directions	04		Impact energy : 0.50 J
5		Protected against dust (no deposits of harmful material)	5		Protected against jets of water from all directions	05		Impact energy : 0.70 J
			6		Protected against jets of water comparable to heavy seas	06		Impact energy : 1 J
			7		Protected against the effects of immersion to depths of between 0.15 and 1 m	07		Impact energy : 2 J
			8		Protected against the effects of prolonged immersion at depth	08		Impact energy : 5 J
						09		Impact energy : 10 J
						10		Impact energy : 20 J

Example :

IP 55 machine

IP : Index of protection

5 : Machine protected against dust and accidental contact.  
Test result : **no dust enters** in harmful quantities, no risk of direct contact with rotating parts. The test lasts 2 hours (test result : no talc enters which could adversely affect the running of the motor).

5 : Machine protected against jets of water from all directions from hoses at 3 m distance with a flow rate of 12.5l / min at 0.3 bar.  
The test lasts 3 minutes (test result : **no damage from water** projected onto the machine).