



### 1. Dimension and Weight

Model	L (mm)	B (mm)	H1 (mm)	H2 (mm)	B1 (mm)	F (mm)	G (mm)	Weight (kg)
PLM-0.3	205	90	95	70	230	46	36	12
PLM-0.6	276	115	107	80	290	55	45	20
PLM-1.0	310	150	140	95	360	60	50	46
PLM-1.5	380	166	158	115	450	65	55	72
PLM-2.0	425	175	170	115	460	65	55	100

### 2. Other Technical Specification

Model	Max. Lifting Capacity (kg)		Object Thickness (mm)	Object Thickness (mm)	Object Length (mm)	Pull-off Force (kg.f)	Working Temperature (°C)
	Plate	Round					
PLM-0.3	300	150	>20	50-150	<2000	1050	<80
PLM-0.6	600	300	>30	60-200	<2500	2100	<80
PLM-1.0	1000	500	>40	80-250	<3000	3500	<80
PLM-1.5	1500	750	>50	100-350	<3200	4500	<80
PLM-2.0	2000	1000	>60	150-450	<3500	6000	<80

### 3. Model selection

The correct model choosing should be depend on area and coarseness of contacting surface, gap between the hoisted object and permanent magnet jack, weight balancing, piece thickness, weight and material of object etc, and the diameter of object if we are lifting a round one.

#### 3.1 The relation between steel plate thickness and lifting capacity:

Tx	Object Thickness (mm)	Ratio of Rated Lifting Capacity				
		PLM-2.0	PLM-1.5	PLM-1.0	PLM-0.6	PLM-0.3
T1	Up 55	100%	100%	100%	100%	100%
T2	50	95%				
T3	45	90%				
T4	40	85%				
T5	35	75%	85%	90%	100%	100%
T6	30	65%	75%	80%		
T7	25	55%	65%	70%	90%	90%
T8	20	45%	55%	60%	75%	
T9	15	35%	45%	50%	60%	70%
T10	10	25%	30%	35%	45%	50%
T11	5	15%	15%	20%	25%	30%

#### 3.2 The relation between surface coarseness and lifting capacity

	0	50%	100%	125%
F1	1.6 μ m			125%
F2	6.3 μ m		100%	
F3	12.6 μ m		90%	
F4	~		80%	

#### 3.3 The relation between hoisting capability and material of object

	0	50%	100%
M1	Low carbon steel		100%
M2	Mild carbon steel		95%
M3	High carbon steel		85%
M4	Low metal alloy steel	75%	
M5	Cast iron	60%	

#### 3.4 Conversion equation of safety lifting capacity (Lf)

$$L_f = T_x * F_x * M_x * \text{rated lifting capacity}$$

#### 3.5 For example

Object condition: T7, F1, M3, 1000Kg (PLM -1.0)

$$L_f = 70\% * 125\% * 85\% * 1000 = 744\text{Kg}$$

3.6 In lifting a round object within stipulated diameter range, the safe lifting capacity is 35%---50% of capacity of lifting a plate shape object. The lifter will output stronger lifting capacity when the object is with bigger diameter.