Role of Current Relays in Compressor Ignition

Category: Refrigeration
written by www.mbsm.pro | 29 January 2026

CHARACTERISTIC TABLES OF VARIOUS START AND PROTECTION STEMS

CURRENT RELAYS

Model	Compressor horse (HP)	Terminal	Apply current()	Applied current (A)
117U 2010	1/3	5	4.5	4.5
117U 2100	1/4	6	3	3.6
117U 2104	1/5	4	6.6	6.5
117U 2050	1/2	1	14	1.4

THERMAL OVERLOAD PROTECTORS

Compressor power (HP)	1/2	1/3	1/4	1/5	1/6	1/2
Max Connect current (A)	12.5	9	9.8	7.5	7	5
Max Connect current (A)	19	16	14	3.5	3.5	3.5
Max release (A)	5	4.75	4	3.5	3	3.3

Compressor power (HP)	Compressor power (HP)	Max connect current (A)	Minimum delease
	8583	6.83	1.93
1/2	BEA15	2.8	2.8
1/3	BEA10	3.8	3.6
1/4	BGA11	1.25	3.25
1/5	BGA11	1.75	3.55

THERMAL OVERLOAD PROTECTORS

Compressor power (HP)	1/2	1/3	1/4	1/5	1/6	1/2
Power Model 151	12.5	9	8	7.5	7.5	7
Max connect current (A)	8	4.05	3.65	4	3.5	3.5
Release current (A)	5	4.75	4	3.5	3	3

THERMAL OVERLOAD PROTECTOR CAPS

Compressor power (HP)	Overload current (A)	Movement temperature	Applied current (113%±10%)	Reply return nurment temperatures
5	35	125±10℃	JET+TEW	60±10℃
1/2	30		JET+TEW	
1/4	25		JET+TEW	

Selecting the right electrical components is the heartbeat of refrigeration maintenance. When a compressor fails to start or constantly trips, the culprit is often a mismatched Current Relay or a fatigued Thermal Overload Protector. Ensuring these parts align perfectly with the compressor’s horsepower (HP) and amperage rating is vital for long-term system reliability.

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Compressor database chart Relay Olp

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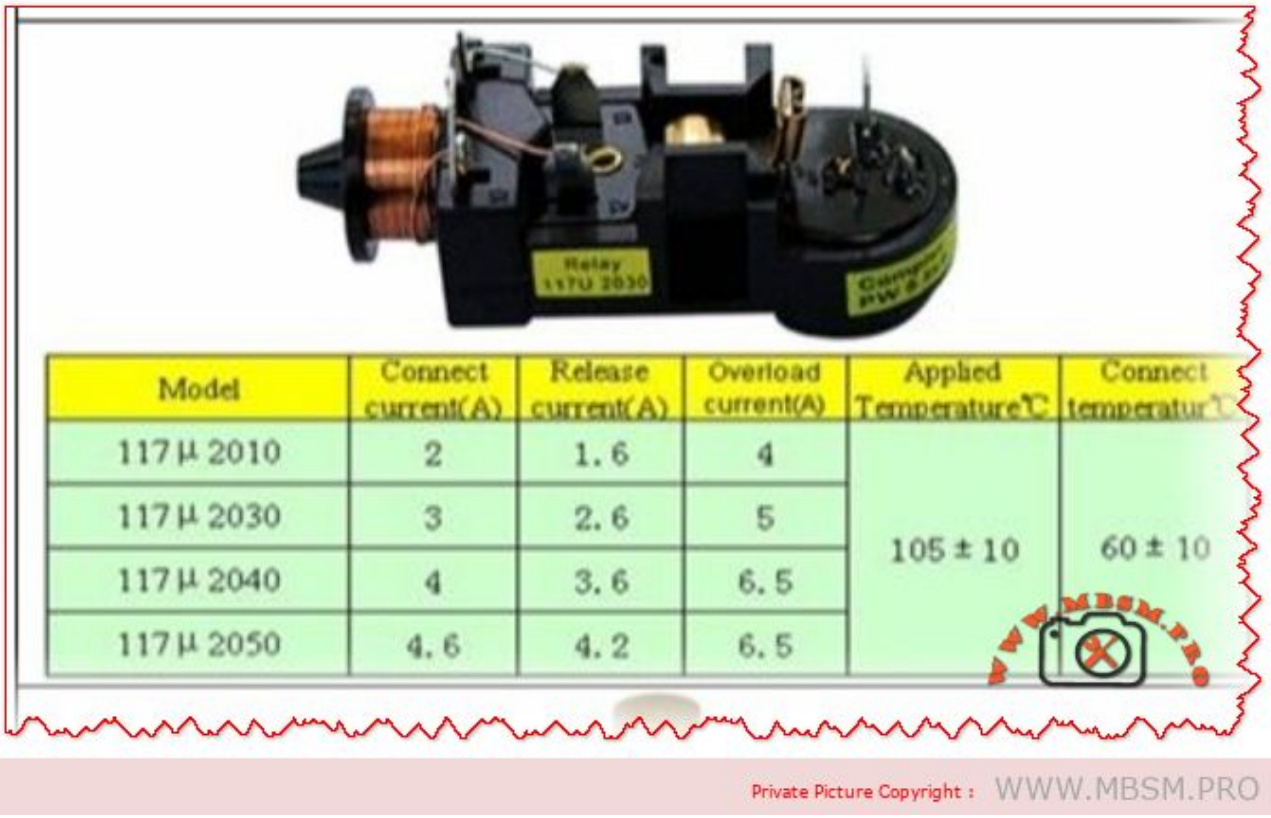

Model	Connect current(A)	Release current(A)	Overload current(A)	Applied Temperature℃	Connect temperatur℃
117μ2010	2	1.6	4	105±10	60±10
117μ2030	3	2.6	5		
117μ2040	4	3.6	6.5		
117μ2050	4.6	4.2	6.5		

A refrigerator compressor does not run alone; it depends on a start relay and an overload protector (OLP) to start safely and avoid burning out. The wiring diagram of compressor, relay, and OLP shows how power flows from the thermostat, through protection devices, to the motor windings, keeping domestic fridges reliable and safe.