

HLMU Motor Protector

**Fast
Facts**

Application notes



SSAC Motor Protectors

Typical 3 Phase Motor Applications:

HVAC/R

- Compressor Protection
- Air Handlers
- Circulating Pumps
- Cooling Towers
- Blowers
- Packaged Refrigeration

Pumping Systems

- Irrigation Pumps
- Water Systems
- Oil Pump Jacks
- Fire Pumps

People Movers

- Elevators
- Escalators
- Ski Lifts
- Moving Walkways

Air Compressors

Emergency Power Systems

Material Handling Equipment

Some Faults Get Past the Competition The HLMU Stops Them All!

Full Protection for 3 Phase Motors

- Phase Loss and Reversal
- Over and Under Voltage
- Unbalanced Voltage
- Under and Over Frequency
- Short Cycling

How the HLMU Stacks Up Against the Competition

Protection	HLMU	The Competition
Microcomputer Accuracy	Full Protection	No Protection
Restart Delay	Full Protection	No Protection
Trip Delay	Full Protection	No Protection
Overvoltage	Full Protection	No Protection
Unbalance 4 to 10% (!)	Full Protection	Partial Protection
Phase Loss (Running)	Full Protection	Partial Protection
Phase Loss (Starting)	Full Protection	Partial Protection
Undervoltage	Full Protection	Partial Protection
Phase Reversal	Full Protection	Partial Protection

(!) The Competition senses average voltage. Unbalance voltage protection is not specified.

HLMU

SSAC

ABB

Stop Motor Failures HLMU - 3 Phase Motor Protection for Pumps and Compressors



Reliable motor protection
even when regenerated
voltages are present

New Compact
OEM Design;
the Smallest
DPDT
Available



HLMU Benefits:

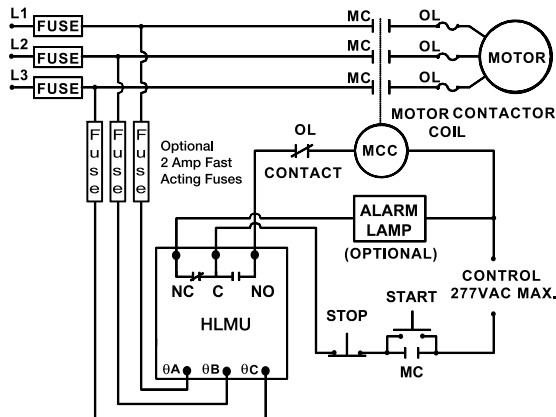
- Universal voltage from 200 to 480 VAC; Reduces Inventory
- Easy-set Adjustable Voltage Ranges Means Fast, Positive Trip Points
- 10 A Isolated DPDT Output Contacts Eliminates an External Relay
- Separate Indication for Phase Reversal; Faster Installation & Troubleshooting
- 2" x 3" x 1.5" Encapsulated Design for Outdoor & Panel Installations

10A Isolated DPDT Output Contacts



- DPDT (2 c/o) isolated relay outputs allow direct connection of control and alarm circuits.
- Output is normally energized.
- IP20 touch proof terminal block connections, no external safety guards are required.

Connection Diagram



Universal Voltage Operation 200 - 480



- Automatically selects the correct adjustment range; 3 ranges from 200 to 480 VAC.
- Separate control voltage is not required.
- Nominal voltage ranges:
200 to 240VAC; 340 to 420VAC; 400 to 480VAC

Easy-set Adjustment

Point the knob at the motor's name plate voltage. The under and over voltage trip points are automatically set at +/- 10%.

Adjustable Restart Delay



0.6 to 300 S adjustable restart delay prevents rapid cycling of sensitive loads like compressors and deep well pumps. Delays restarting after a power outage until lighting and heating loads are energized and the system's voltage has stabilized.

Bi-color LED Indication



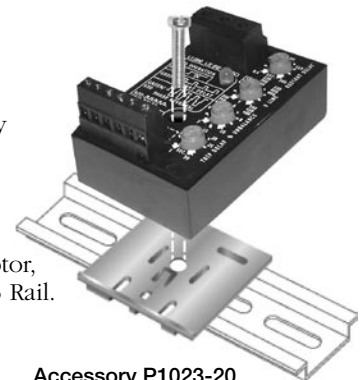
Flashing Green
– Restart delay
Steady Green
– Output relay energized



Flashing Red
– Trip Delay
Steady Red
– Output Relay De-energized
Alternating Red/Green
– Phase Reversal

Flexible Mounting

- Cost Effective Easy Mount Design
- Fast, One Screw Surface Mounting
- DIN 3 Mounting, Using P1023 Adaptor, Snaps Onto DIN 3 Rail.



Accessory P1023-20
DIN Rail Adaptor

