

# Unipower HPL110

## Load monitor with Max./Min. limit

### Generally

**Low cost** kW-meter with built-in functions for control and supervision of AC-motor driven equipment. A very popular and inexpensive unit. The more advanced functions implemented in our HPL400 family are not present in this unit. The unit is used by several manufacturers of pumps, conveyors and special machinery. Some of these have their own logo on the front plate. This is also an option for future customers.



### Features

- \* kW[%] measurement
- \* Digital programming
- \* Start timer 0,1-99.9 sek
- \* Reaction timer 20ms-99.9 sek
- \* Max. limit 5-100%
- \* Min. limit 5-100%
- \* 2-points regulation
- \* Built-in Peak detector

### Applications

- \* Pump supervision (Max. and Min.).
- \* Supervision of conveyor belts.
- \* Simple overload supervision of cranes.
- \* 2-points regulation via hysteresis on the Max.- or the Min.-limit.
- \* Other machinery where an alarm is required on a given motor torque (Max. and Min.).

### Technical data

#### Mechanical

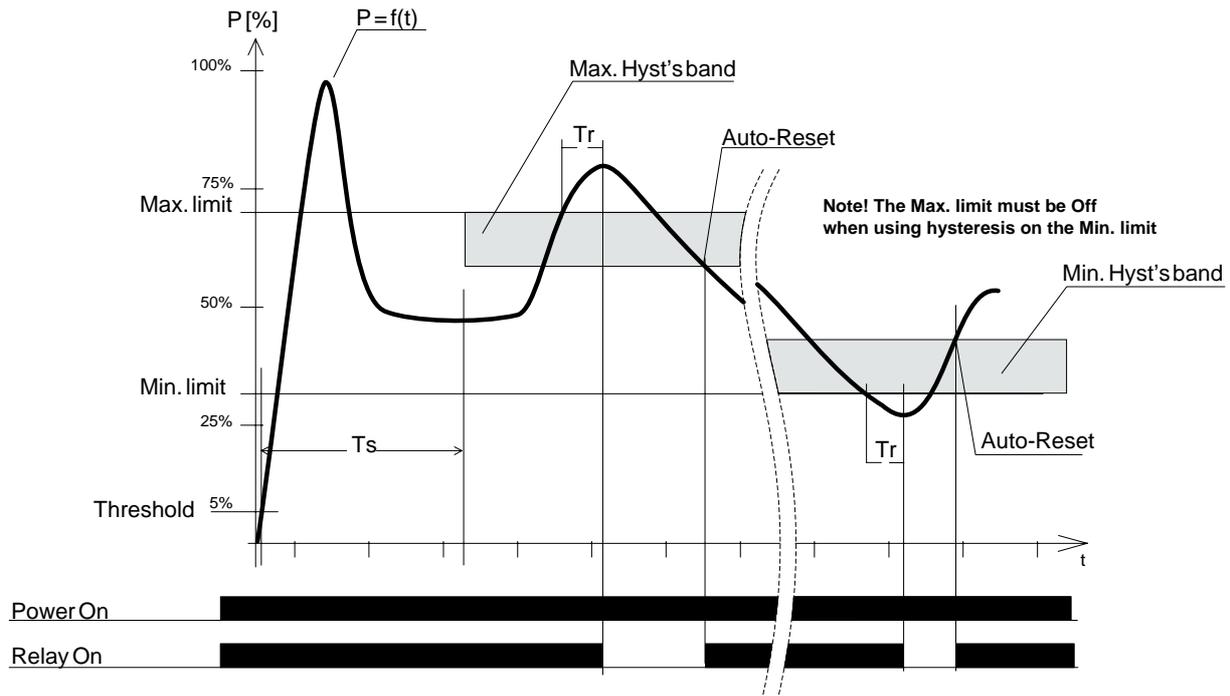
Housing: Makrolon UL94V-1 (housing)  
Makrolon UL94V-2 (konconnector)  
Mounting: 35 mm DIN rail- or wall mounting  
IP class: Housing IP40  
Connector IP20  
Temp range: -15 to +50 °C  
Weight: 400 g  
Dimensions: D 75 x B 56 x H 110 mm  
UL certif.: UL508. File E190959

#### Electrical

Supply/measurement: See technical info on the unit  
Available: 3x120 to 3x575V~  
Current range: Internal max 8 A~  
Eksternal N/1 or N/5 A~  
Frequency range: 50/60 Hz  
Consumption: 3 VA  
Relay output: 250V~/5A~  
Analogue output: 4-20 mA max 400 ohm  
CE mark to: EN50081-1, EN50082-2,  
EN61010-1

# Unipower

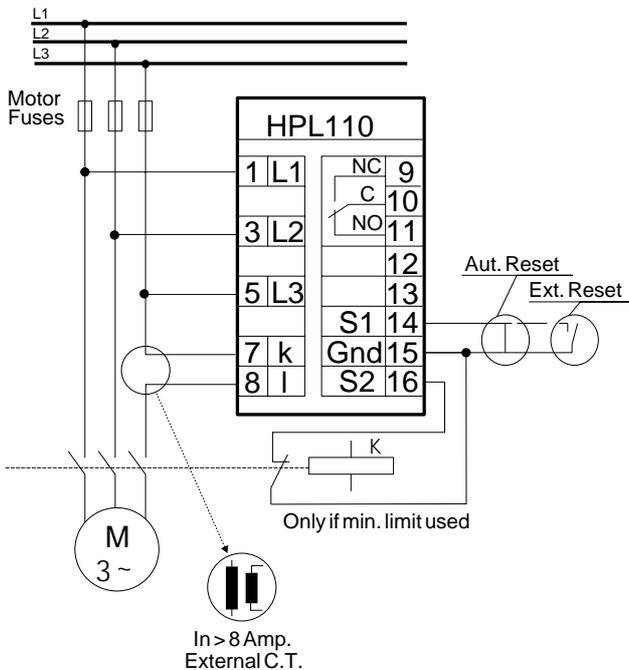
is among the leading products when it comes to digital and analogue load monitors and measurement transducers



The Figure above shows a typical AC-motor power consumption curve immediately after power has been applied to the motor. The bars at the bottom of the figure indicate power applied to the unit and the position/state of the relay (On/Off). The figure shows the functions

and the parameters of the HPL110 in two different situations; hysteresis on the Max. limit and hysteresis on the Min. limit. Note that the use of hysteresis on the Min. limit requires the Max. limit to be Off.

### Typical wiring



### Unipower product program

Units for DIN-rail mounting (35mm) or panel mounting (72 x 72).

**Measurement transducers:** 1- and 3-phased kW-measurement. Symmetric and asymmetric. Before and after frequency inverters. Analogue output (4-20mA) as well as pulse output (kWh).

**Load monitors:** 3-phased symmetric kW-measurement. Programmable kw-limits: Max., Min and dP/dt. Support functions: Start timer, reaction timer, hysteresis, auto reset, manual reset, alarm blocking etc. Analogue output (4-20mA).

**Tool supervision:** Kompact units for supervision of up to 16 cut. Measurement of power and work for break, wear and missing tool. Monitoring program for installation and statistics, for DOS or Windows.