

Display & Programming overview.

Mode	Function	Parameter	▼	▲	Display	Default
Power = kW [%]	KW display		Min. Peak	Max. Peak	kW [%]	
Max. Limit [%]	Max. KW limit	5-100%/Off	Decrease	Increase	Off/Max. Limit [%]	80%
Min. Limit [%]	Min. KW limit	Off/5-100%	Decrease	Increase	Off/Min. Limit [%]	Off
Start Timer [S]	Starttimer	0.1-99.9 Sec.	Decrease	Increase	Ts [Sek.]	2.0 Sec.
Reaction Timer [S]	Max. Alarm Delay	0.0-99.9 Sec.	Decrease	Increase	Max. Tr [Sek.]	0.1 Sec.
Reaction Timer [S]	Min. Alarm Delay	0.0-99.9 Sec.	Decrease	Increase	Min. Tr [Sek.]	0.1 Sec.
Hysteresis [%]	2 point regulation	2-50%	Decrease	Increase	Hysteresis [%]	10%
Current Range [A]	Current Range	1, 3, 5, 8 Amp.	Decrease	Increase	1, 3, 5, 8	5 Amp.

The HPL110 is programmed by the use of only three keys located at the front panel. See paragraph about programming on page 2. The parameters and their programming ranges are listed in the table above. Parameters are stored in EEPROM. When no key has been activated for about 5 seconds the display returns to the kW[%] position. Note that the function of the keys is repeated if continuously activated.

LED usage:

The HPL110 has a number of LED's, which are used to indicated to the user the condition of the unit, i.e. above trip points or alarms. The table below shows the usage of the LED's.

LED Usage	
Max. Alarm	Max. Limit LED flashing
Min. Alarm	Min. Limit LED flashing
Start Timer	Ts LED On
Alarm Delay	Tr LED On
Relay ON	Relay On LED lit

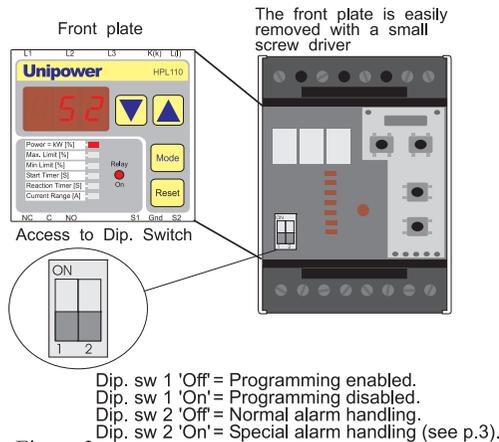
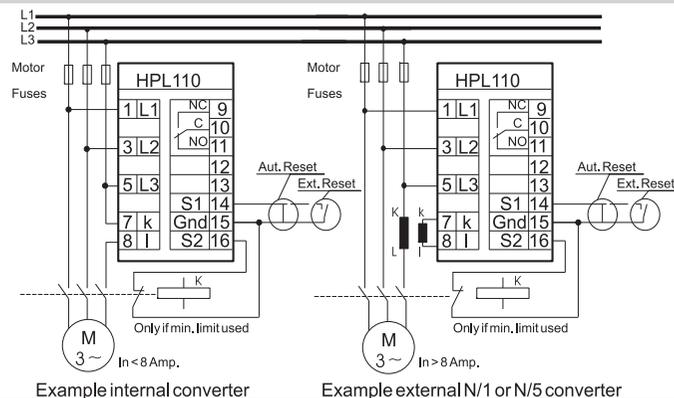


Figure 3

Note! An external current converter (if present) must always be mounted in the L3-phase for correct measurement. The polarity is not important.



Unipower

HPL110
Version 4.0

Technical Information

English Edition

Technical Specifications

Electrical

Voltage Range

See Technical info on the unit
Also available:
3 x 120 VAC -> 3 x 575 VAC

Current Range

Internal: max. 8 Amp.
External: N/1 or N/5 converter.

Co ϕ Range: 0-1

Frequency Range: 45-65 Hz.

Consumption.

Supply = measuring voltage, 2 VA.

Mechanical

Housing

Makrolon 8020 (30% GV), UL94V-1 (house).
Makrolon 2800, UL94V-2 (connector + front).

Mounting

Snap-on construction for 35mm DIN rail mounting or panel mounting.

Protection Class

IP40 (house).
IP20 (connector).

Temperature Range: -15 - +50 °C

Weight: Approx. 400g.

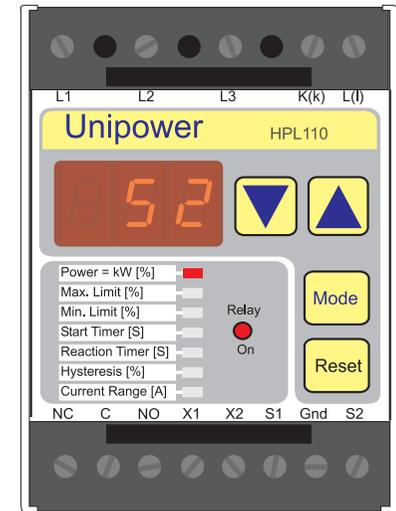
Dimensions: D110 x W56 x H75 mm.

CE-mark to:

EN61326-1, EN61010-1

UL certified:

UL508, File E194022



THE CONCEPT

The Unipower HPL110 is a „*low-cost*“ member of a family of „*Intelligent Power-Control Units*“. The unit measures true power-consumption and shows the consumption as a percentage of the selected power-range. The power-consumption (kW) is calculated from the following formula:

$$P = \sqrt{3} \times U \times I \times \text{Cos}\phi$$

The primary function of the HPL110 lies in the supervision and control of machinery driven by 3-phased AC-motors. The HPL110 integrates a Max. and/or a Min. kW limit detector plus the support functions necessary to establish the efficient and compact supervision or regulation of various types of machinery such as pumps, ventilators and conveyer belts. The HPL110 has a built in current converter that works up to 8 Amp.

