Unipower HPL425 Load monitor with 2 Max. limits

Generally

kW-monitor with embedded functions for the control and supervision of AC-motor driven equipment. Besides kW the unit is able to perform phase order supervision. The unit contains 2 Max. limits. Limit 2 is often used as a pre-trigger alarm and control of a given proces. Limit 1 is used as a safety alarm. The unit contains an analogue output 4-20mA proportional to the kW-measurement. During an alarm condition the analogue output is set to 0mA.

Features

- * kW[%] measurement
- * Digital programming
- * Start timer 0,1-25 sec.
- * Reaction timer 10ms-25 sec.
- * Max. limit 1 5-100%
- * Max. limit 2 5-100%
- * Direct measurement up to 8 A

Mechanical

- * Phase order supervision
- * Peak detector



Applications

- * Supervision using pre-trigger alarm
- * Supervision of conveyor belts
- * Control of material flow
- * Control of mixers
- * Simple tool supervision
- * 2(4) point regulation via hysteresis on both Max. limits
- * Machinery where an alarm is required at a given motor torque (Max. and Min.)

Technical data

Housing:Makrolon UL94V-1 (housing)
Makrolon UL94V-2 (connector)Mounting:35 mm DIN rail- or wall mountingIP class:Housing IP40
Connector IP20Temp range:-15 to +50 °CWeight:500 gDimensions:D 75 x B 56 x H 110 mmUL certif.:UL508. File E190959

Supply/measurement: Available: Current range:

Frequency range: Consumption: Relay ratings: Analogue output: CE mark to:

Electrical

See technical info on the unit 3x120 to 3x575V~ Internal max 8 A~ External N/1 or N/5 A~ 50/60 Hz 3 VA 250V~/5A~ 4-20 mA max 400 ohm EN50081-1, EN50082-2, EN61010-1

Unipower

leading in 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 function of Ts, Tr and Hys-

teresis on the Max. 1 limit is shown. The hysteresis function is enabled by connecting the S1 input to Gnd (Autoreset).

Phase order error results in relay 1 opening (not relay 2) and Iout equals 0mA.



Unipower product program

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

Measurement transducers: 1- and 3-phase symmetric and asymmetric kW-measurement, before and after frequency inverters. Analogue output (4-20mA) and pulse output (kWh).

Load monitors: 3-phased symmetric and asymmetric 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: Compact units for supervision of up to 16 cuts. Measurement of power and work for break, wear and missing tool. Monitoring program for installation and statistics, for DOS or Windows.