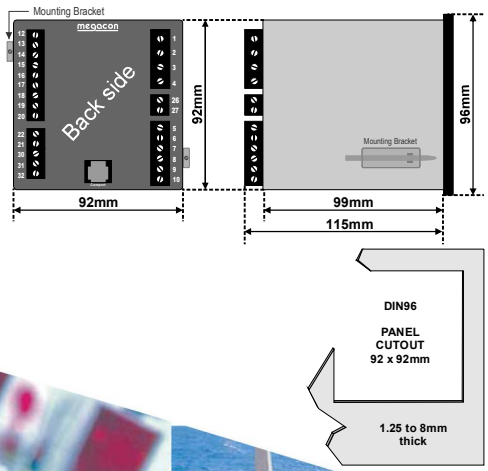
AC CURRENT IMBALANCE GUARD

KPC110x

- **2-level AC Current Imbalance Protection**
- **True RMS measurement not affected by heavily distorted waveforms**
- **3 or 4-wire systems. Definite time trip delays**
- **Fast analogue mA output (F version)**
- **Total processing time less than 50mS**

Specifications

Auxiliary Voltage:	100-120V, 220-240V, 380-415V, 440-480VAC 40/70Hz
Optional Auxiliary Voltage:	18-36 or 36-160VDC
Current Input - Class 0,5:	1A CT or 5A CT, <0,1VA
Contact rating: AC: DC:	100VA -250V/2A max. 50W -100V/1A max.
Adjustments:	
Trip level waring:	0-100% of set alarm trip level
Trip time warning:	0-30 Sec
Trip level alarm:	0-40% CT rating
Trip time alarm:	0-3 Sec
Analogue outputs: F-versions	0-10, 0-20, 4-20, 4,3-20mA, max 500ohm 0-10, 0,2-10V min 10kohm
Temperature:	-20 to +70ºC
Weight:	0.6kgs
Front protection:	IP54 (IP65 optional)



Description

The digitally controlled KPC110E monitor and convert the three current transformer (CT) inputs into a signal proportional to the difference between the HIGHEST and the LOWEST input level.

The difference (imbalance) is displayed as a percentage of the CT rating. 1A secondary class 0.5 transformers should preferably be used. The standard scale range is **0 to 40%CT**. The warning and alarm trip relays are settable over the same range. Fast response mA output proportional to meter scale reading (KPC110F). Start of monitoring functions is delayed when auxiliary power is switched on (default 2 secs delay).

The unit meets IEC60092-504 an the relevant EMC and environmental tests specified in IEC60068/60092 and IEC61000/60533 respectively, to comply with the requirements of the major Classification Societies.

Application

Relay R1 is used for early warning. R2 (fail safe) can be used for generator breaker trip. R3 can be used for local indication, input to PMS, alarm system etc. Alarm trip must be sufficiently high to ensure that generator magnetisation current does not cause tripping.

The alarm delay is to be set so that the initial inrush current have returned to normal level before the delay period elapses. The warning trip level and delay can be set as required to give early warning. User settable trip levels and delays. Colour of LEDs indicate alarm status. LEDs flash during count-down. The "Pathfinder" indicates the phase causing the trip by flashing pattern of the relevant LED.

	WARNING	ALARM	FAIL SAFE	LATCH
R1	√			*√
R2		√	√	*√
R3	√	√	√	*√

Notes:
Relays shown de-energised
A fail-safe and energises when unit is powered
(E is the standard)

Models	Latch	Output
KPC110E	-	-
KPC110F	-	X
KPC110G*	X	-
KPC110GF*	X	X