AC ACTIVE POWER OVERLOAD GUARD

KCW18x

- **Precision Overload Protection, not affected by heavily distorted waveforms**
- **3 or 4-wire systems. Definite time trip delays**
- **Triple relay operation gives more flexibility**
- **Fast response analogue kW-signal output, <50mS (F version)**
- **Wide range setting of high overload contact hysteresis**
- **Optonal DIN96 Slave Indicator with status LEDs**

Specifications

Auxiliary Voltage:	100-120, 200-240, 380-415 or 440-460VAC, 40-70Hz	
Optional DC Auxiliary Voltage:	Nom. 12, 24, 48 or 110VDC	
Current Input:	1 or 5A C.T. <0,1VA	
Contact rating:	AC: 100VA - 250V/2A max. DC: 50W - 100V/1A max.	
Adjustments	Trip level	Delay
HIGH:	0-100% of FSD	0-30secs
LOW:	0-100% of FSD	0-30secs
Hysteresis		
HIGH:	2-50% of FSD	
LOW:	2-50% of FSD	
Analogue Output: *F version	Up to 20mA, max 500R or Up to 10V, min 100kohm (other on request)	
Temperature:	-20 to +70ºC	
Weight:	0.6kgs	
Front protection:	IP21	

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

Related information:
The KCW18x-range is also available for panel mounting as KPW18x.

Application

The digital controlled KCW18x range provides precision (1.0%) kW overload protection and monitoring of three phase generators or motors.

The unit measures the voltage and current true r.m.s. value, and accuracy is independent of any wave form distortion. The auxiliary voltage is supplied from the unit voltage input. A DC auxiliary voltage input is optionally available.

A green LED indicates POWER on. Start of monitoring function is delayed when power is switched on (default 2 secs delay). In this way false tripping during power up is avoided.

The DIN-rail mounted instrument reads the power level directly in kW. The slave Watt-meter and the triple-zone status LEDs at a glance gives the clear safety message: LOW/NORMAL/HIGH.

Relay Outputs
The unit has relay outputs for low load (R1), Overload (R2) and R3 activates if either R1or R2 is active. Both high and low relay are fail to safety configured. A trip LED flashes when the trip level is passed, the relay trips when the delay has elapsed. The timer resets if the fault is removed during countdown. Hysteresis, Trip levels and delays are settable on unit front. The High/Low relays can be used to regulate power in AC systems.

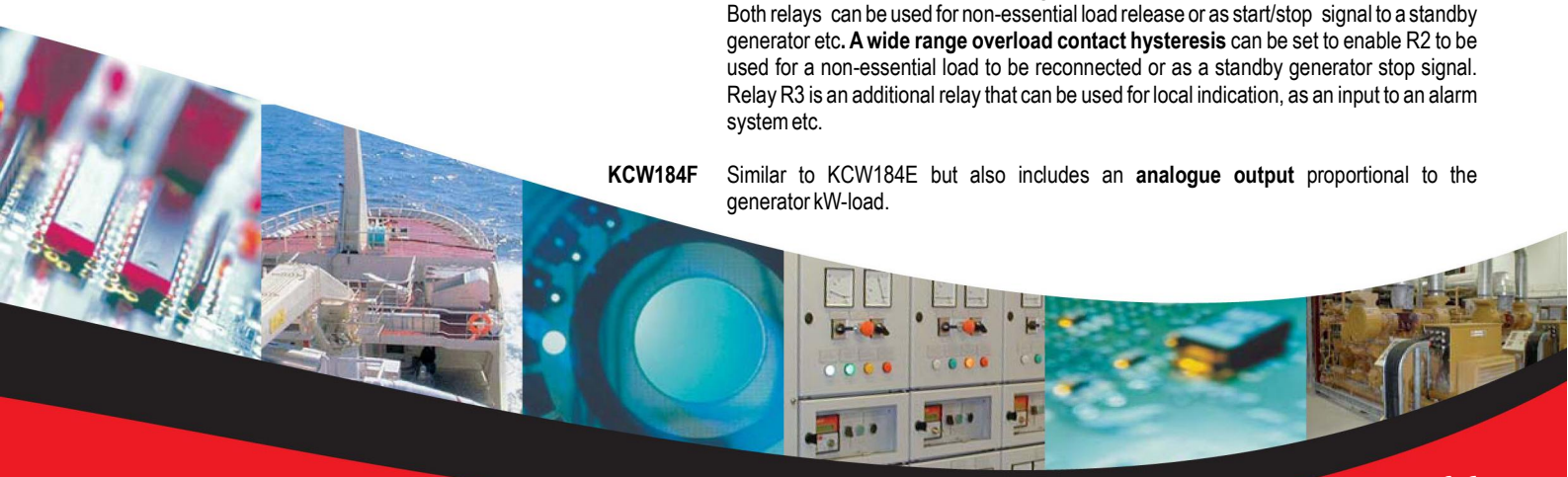
Description

KCW181E **For use in three phase 3 -wire configuration**
Both relays can be used for non-essential load release or as a start/stop signal to a standby generator etc. **A wide range overload contact hysteresis** can be set to enable R2 to be used for a non-essential load to be reconnected or as a standby generator stop signal. Relay R3 is an additional relay that can be used for local indication, as an input to an alarm system etc.

KCW181F Similar to KCW181E but also includes an **analogue output** proportional to the generator kW-load.

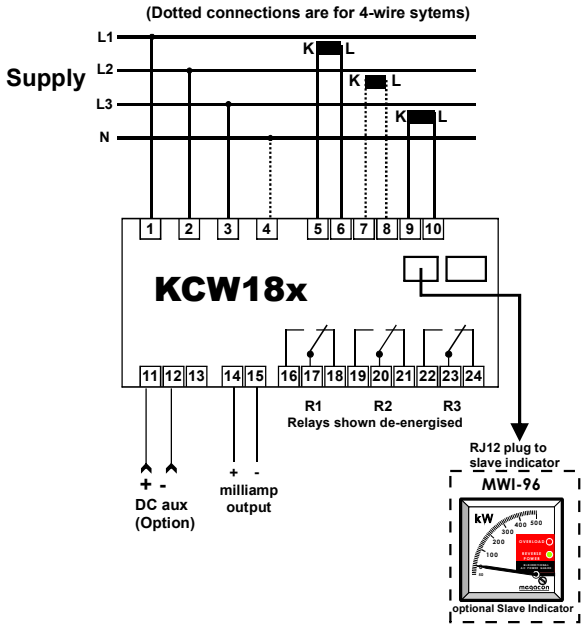
KCW184E **For use in three phase 4 -wire configuration**
Both relays can be used for non-essential load release or as start/stop signal to a standby generator etc**. A wide range overload contact hysteresis** can be set to enable R2 to be used for a non-essential load to be reconnected or as a standby generator stop signal. Relay R3 is an additional relay that can be used for local indication, as an input to an alarm system etc.

KCW184F Similar to KCW184E but also includes an **analogue output** proportional to the generator kW-load.



KCW18x

To ensure correct kW measurement voltage phase sequence and CT connections MUST be as shown on connection diagram.



NOTE: **Details in individual connection diagram supplied with unit may differ from the general diagram shown above.**

Relay

	LOW	HIGH	FAIL SAFE	LATCH
R1	√		√	
R2		√	√	
R3	√	√		

Fail-safe
All fail-safe relays will energise and change state when unit is powered.

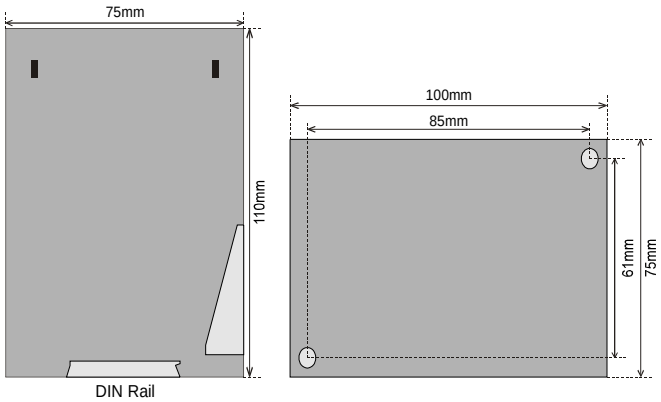
Analogue Output

KCW181F and **KCW184F** have an analogue output proportional to slave kW-meter reading. The signal is specifically intended as input to a control system for kW monitoring, load sharing, load shedding etc.

Add to type designation suffix from table below to designate output required:

O/P1	0 - 10mA	**O/P6**	N/A
O/P2	0 - 20mA	**O/P7**	N/A
O/P3	4 - 20mA	**O/P8**	0 - 10V
O/P4	N/A	**O/P9**	0,2 - 10V
O/P5	N/A	**O/P10**	4,3 - 20mA

Dimensions



The MEGACON policy is one of continuous improvement, consequently equipment supplied may vary in detail from this publication.

ORDERING EXAMPLE:

Type:	KCW184F
Aux. Supply:	200-240V
Input Voltage:	690:230V
Input Current:	1500/5A
Range:	-150/0/+1500kW
Analogue O/P:	4,3-20mA

IS range