



KLIK

Multi-function clip-on kWh meter module

KLIK is a multi-function clip-on kWh sub-metering system delivering companies with the means of identifying potential cost reductions by showing exactly where their power is being used and therefore enabling cost effective measures to be put in place.

Features:

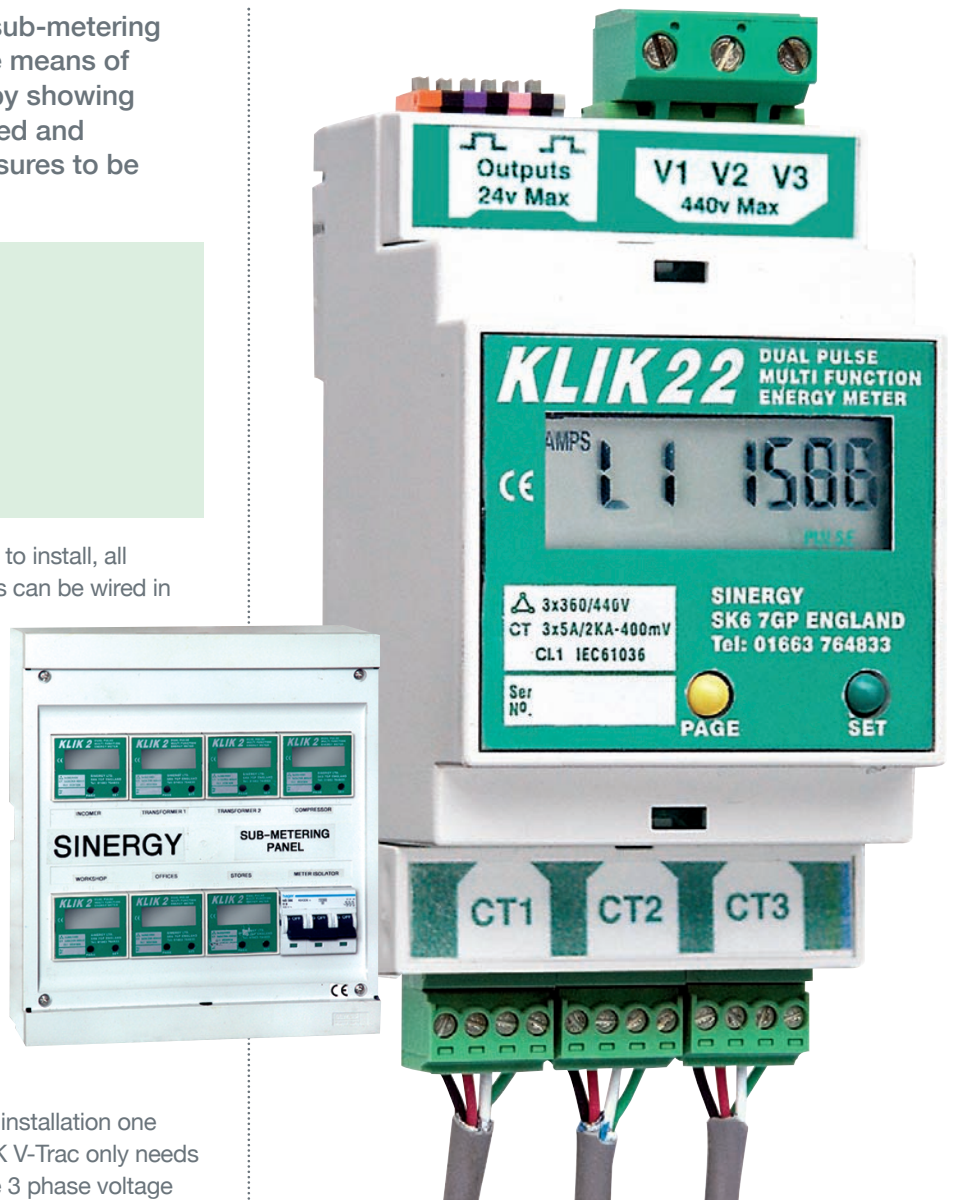
- Plug in connections, DIN rail fitment
- Displays all measurements
- Hi peak demand alarm option
- On site multi pulse programming
- Use clip-on, bobbin or Flexeclamp CTs
- Long distance CT wiring options

The KLIK system is very fast and cost effective to install, all connections are plug-in. Pulse outputs and CTs can be wired in low grade cable up to distances of 1 km.

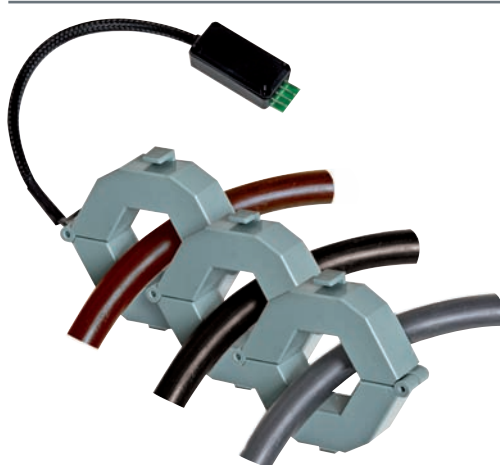
Fitting is easy, supplies do not need to be isolated or cables disconnected and separate cubicles, panel cut outs and CT mounting kits are all unnecessary. Bobbin CTs can even piggy back onto the 5Amp secondaries of existing CTs or ammeter switch wiring.

Energy profile detail can be collected by Building Management System (BMS) outstations or data loggers or both. KLIK meter pulses can be wired through buildings or transmitted across site by LP radio, across country by modem logger or to a web site by GSM, using additional equipment.

KLIK V-Trac takes the concept of non-invasive installation one stage further. As well as using clip on CTs, KLIK V-Trac only needs 1 phase voltage connection. It then creates the 3 phase voltage measurement vectors in a safe, quick and very convenient way.



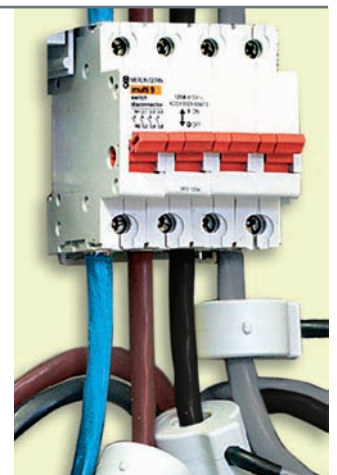
Din rail mount case with plug in connections



Clip-to-cable slim CTs wireable over long distances, securable by cable ties



Flexeclamp CTs



Bobbin CTs

KLIK Operational Specification

ELECTRICAL

Current Input	Bobbin, hinged clip-on or Flexeclamp CTs; 800mV.FSD
Current Range	10Amps full scale - 3000Amps full scale
Voltage	380/440V, 110/100V-3Ø, 210/250-1Ø, 210/250-3Ø V Trac
Fusing	Recommended: 3Ø 2A HRC, 1Ø 3Amps
Consumption	0.5 VA max
Insulation	2.5kV for 1 minute
Connection	Wireable voltage plug, wireable CT leads up to 1km
Pulse Wiring	2 core signal cable to 1km

DISPLAY

Type	Hi-contrast custom LCD, 7 digits 8 x 4mm
Page change	By key or auto scroll, 5 sec. display value refresh
Indication	Displayed unit title. Secure prompted set up routine
Volatility	Non volatile, auto restart after power outage

PULSE OUTPUTS

Pulse relays	Compatible with BMS Outstation 'digital' inputs
Pulse relays	Optically isolated volt free N.O. contacts 24V/100mA
Pulse	
Duration/Rate	120ms, max rate 3 pulses per sec. 2secs to order
Pulse value (kWh)	Ip dependant, for <80A-0.01, 100A-800A-0.1, >1000A-1.0

ALARM

Output	SPNO relay 24V/100mA. Contacts to external circuitry
Prediction	Moving 15 or 30min averaging window calculation
Reset	Automatic where average falls to set point

CONSTRUCTION

Materials	HDPS, SE87
Climatic	Oper.Temp -10°-+55°C. 95% RH (NC)
Protection	Module IP20, Enclosure IP55

STANDARDS

Calibration	IEC 1036
Safety	IEC6 1010-1
EMC	EN55022/50082

Ordering Information

MODULE SELECTION

KLIK 11	Display of kW demand & kWh register, one pulse relay (kWh)
KLIK 22	Two pulse relays; R1=kWh, R2 =kWh or kVAh or kVARh (user selectable)
KLIK 22 MD	As KLIK22 plus Peak Demand alarm relay, moving window prediction R3 = MD alarm (option)
KLIK V Trac	3Ø monitoring using 1Ø voltage reference supply

VOLTAGE SELECTION

(Neutral only required for single phase units)	
Single Ø Types	L - N 220v (180-250)
Three Ø Types	L - L 400v (380-450)
HV Types	L - L from VT (PT) 110v, 100v or 120v/60Hz. 2 or 3 element





KLIK CT Selection

Sinergy clip-on and Flexeclamp CTs utilise a precision wound air cored inductor with a hybrid integrator module to provide an ac voltage output directly proportional to the ac current being measured.

These enhanced Rogowski current transducers do not display the eddy current, hysteresis or saturation errors common to iron cored CTs.

They are light and fully insulated for safety. Since they can be secured with a tie wrap, mounting hardware is not required. Bobbin CTs use a special high permeability toroidal core to provide a high linearity voltage output particularly at very low currents. They are the smallest CTs available and will fit comfortably on 0-5Amps wires to an existing kWh meter or ammeter switch. The split core version is essential for HV monitoring where 1Amp (this option requires 5 turns coiled around CT) or 5Amps circuits cannot be temporarily disconnected.

KLIK CT Selection

CT Style	CT Part Number	Nominal Size		Amps range	Nominal Ip PF-0.6 to unity temp 25'c 50/60Hz	Accuracy Capacity mm	Clip-on Nom	Outlines
		ID	OD					
Hinged Clip On	KSC16	16mm	54mm	4-200	1.0%	16x16	16	
	KSC32	32mm	72mm	4-500	1.0%	32x18	32	
	KSC48	48mm	84mm	6-1000	1.0%	42x25	48	
	KSC60	60mm	90mm	8-1600	1.0%	58x25	60	
Flexeclamp Clip Round	KF30	300mm length		8-800	2.0%	20x85	90	
	KF40	400mm length		16-1600	2.0%	60x130	120	
	KF50	500mm length		20-2000	2.0%	70x150	155	
	KF60	600mm length		30-3000	2.5%	70x200	190	
	KF70	700mm length		30-3000	3.0%	70x265	215	
Bobbin Thread On	KB13	13mm	38mm	0.5A-100A	1.0%		13	
Bobbin Clip On	KSB10	10mm	30mm	0.5A-80A	1.0%		10	
	KSB16	16mm	50mm	0.5A-120A	1.0%		16	

In pursuance of our policy of continued improvement Marshall-Tufflex Energy Management reserve the right to change the design or specification of its products without notification.



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