

Applications

The can be used in a diverse range of applications:

- Semiconductor switching waveforms (device loss)
- High frequency (hf) sinusoidal currents, e.g. induction heating
- Power converter development and diagnostics
- Measuring small AC currents in the presence of large DC currents (e.g. monitoring capacitor ripple)
- Measuring current in motor drives and in particular power quality in VSD, UPS or SMPS circuits
- Monitoring lightning strikes
- EMC measurement and measuring harmonic current components
- Measuring fault currents or for use in pulsed power measurements



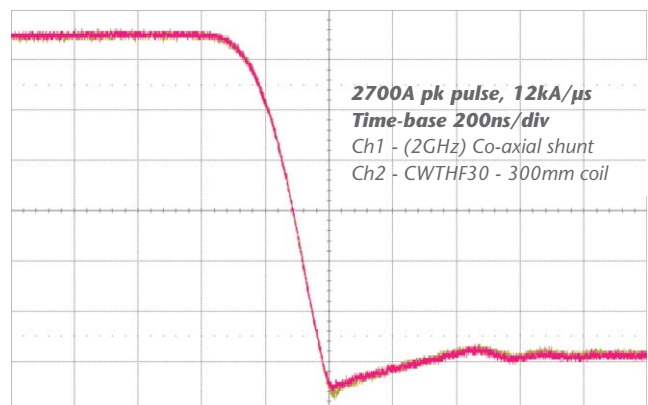
The combines an easy to use thin, flexible, clip-around Rogowski coil with an ability to accurately replicate fast switching current waveforms be they, sinusoidal, quasi-sinusoidal, PWM or pulsed.

Ideal for a wide variety of applications, including power electronics development work, the introduces practically zero insertion impedance to the DUT, offers isolation up to 10kV peak and is available in current ratings from 30A to 300kA.

The new HF models

The range has been improved and extended to now include the NEW HF featuring

- **A novel electrostatic shielded Rogowski coil** providing excellent immunity to interference from fast local dV/dt transients or large 50/60Hz voltages
- **Extended (-3dB) high frequency bandwidth of up to 30MHz for a 300mm coil**
- **Peak di/dt capability of over 100kA/μs.**



Model	Sensitivity (mV/A)	Peak current* ¹ (kA)	Noise max* ² (mVp-p)	Droop (%/ms)	LF (-3dB) bandwidth (Hz)	Peak di/dt (kA/μs)	HF (-3dB) bandwidth* ³ (MHz)	
							300mm	700mm
ISOTEMP HF 015	200	0.03	15	85	150	2.0	20	8
ISOTEMP HF 03	100	0.06	11	78	105	4.0		8
ISOTEMP HF 06	50	0.12	8.0	70	80	8.0		10
ISOTEMP HF 1	20	0.3	6.0	50	50	20		10
ISOTEMP HF 3	10	0.6	12	11	12	40	30	15
ISOTEMP 3N	10	0.6	12.0	0.9	1.0	4.0	16	10
ISOTEMP HF 6	5.0	1.2	12	5.5	6.0	80	30	15
ISOTEMP 6	5.0	1.2	9.0	0.9	1.0	8.0	16	10
ISOTEMP HF 15	2.0	3.0	10	3.0	3.0	80	30	15
ISOTEMP 15	2.0	3.0	7.0	0.7	0.8	20	16	10
ISOTEMP HF 30	1.0	6.0	10	1.5	1.5	120	30	15
ISOTEMP 30	1.0	6.0	5.0	0.5	0.6	40	16	10
ISOTEMP HF 60	0.5	12	8.0	1.0	1.0	120	30	15
ISOTEMP 60	0.5	12	3.0	0.35	0.4	40	16	10
ISOTEMP HF 150	0.2	30	5.0	1.0	1.0	120	30	15
ISOTEMP 150	0.2	30	3.0	0.2	0.2	40	16	10
ISOTEMP HF 300	0.1	60	5.0	0.6	0.5	120	30	15
ISOTEMP 300	0.1	60	3.0	0.1	0.1	40	16	10
ISOTEMP HF 600	0.05	120	5.0	0.6	0.5	120	30	15
ISOTEMP 600	0.05	120	3.0	0.06	0.05	40	16	10
ISOTEMP HF 1500	0.02	300	5.0	0.6	0.5	120	30	15
ISOTEMP 1500	0.02	300	3.0	0.035	0.03	40	16	10

*1. Higher Peak current than 300kA available on request *2. Noise max. is the internally generated integrator noise which is at a maximum at LF(-3dB) bandwidth
*3. The High Frequency HF(-3dB) bandwidth is quoted for a 2.5m cable

Output	±6V peak corresponding to 'Peak Current' into ≥ 100kΩ (e.g. DC1MΩ oscilloscope) ±2V peak, Sensitivity is half the nominal value into = 50Ω										
Accuracy	Conductor position in the coil (for a 80mm² conductor) typically Linearity (with current magnitude)	±1% reading 0.05% reading									
Calibration	Calibrated to ±0.2% reading with conductor central in the coil loop										
DC offset	±3mV at 25°C										
Temperature	Coil and cable Integrator	-20°C to +100°C 0°C to 40°C									
di/dt ratings	These are 'Absolute maximum di/dt ratings' and values must not be exceeded										
	<table><tr><th>Type</th><th>Abs. Max. peak di/dt</th><th>Abs. Max. rms di/dt</th></tr><tr><td>isotemp HF</td><td>120kA/μs</td><td>1.5kA/μs</td></tr><tr><td>isotemp</td><td>40kA/μs</td><td>1.5kA/μs</td></tr></table>		Type	Abs. Max. peak di/dt	Abs. Max. rms di/dt	isotemp HF	120kA/μs	1.5kA/μs	isotemp	40kA/μs	1.5kA/μs
Type	Abs. Max. peak di/dt	Abs. Max. rms di/dt									
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isotemp	40kA/μs	1.5kA/μs									
Coil length	300, 500, 700 and 1000mm – longer coils available on request										
Insulation	10kV peak (8.5mm thick coil – removable silicone tube for mechanical protection 14mm thick)										
Cable length	1, 2.5 or 4m – length of cable from coil to electronics, longer cables available on request										
Power	Options: B - Standard: 4 x AA 1.5V alkaline batteries. Lifetime 25 hours. External adaptor disconnects batteries and powers unit. R - Rechargeable: 4 x AA 1.2V NiMH batteries. Lifetime 10 hours. External adaptor recharges batteries and powers unit. External power adaptor - US, EURO, UK versions available										

Generating the part code	Model	/	Power option	/	Cable length (m)	/	Coil length (mm)
	See table above		B-Battery R-Rechargeable		1, 2.5 or 4 (Custom lengths available)		300, 500, 700 or 1000 (Custom lengths available)
	isotemp HF 06	/	R	/	2.5	/	700

i.e. HF, peak current 120A, Rechargeable battery, 2.5m cable, 700mm circumference coil, 10kV peak coil, 8.5mm thick
All units are supplied with, factory calibration certificate, hard carry case, 0.5m BNC:BNC output cable