

COMPARISON CHART

1740 series power quality loggers



		Obsolete Fluke memo boxes			NEW Fluke 1740 Series		
		1743	1744	1745	1742	1746	1748
Measurement methods	61000-4-30	Class B	Class B	Class B	Class A 3rd ed	Class A 3rd ed	Class A 3rd ed
Inputs	Measurement	3 V 4 A	3 V 4 A	3 V 4 A	3 V 4 A	3 V 4 A	3 V 4 A
Inputs	Aux input (analog inputs)	-	-	-	2 Analog 2 BLE (Fluke Connect modules)	3 Analog 2 BLE (Fluke Connect modules)	4 Analog 2 BLE (Fluke Connect modules)
Sample rate		10.24 kHz	10.24 kHz	10.24 kHz	10.24 kHz	10.24 kHz	10.24 kHz
Basic Measurements	Volt	●	●	●	●	●	●
	Amp	●	●	●	●	●	●
	Hz	●	●	●	●	●	●
	Power (rms/full)	●	●	●	●	●	●
	Power factor	PF, DPF, TAN ϕ	PF, DPF, TAN ϕ	PF, DPF, TAN ϕ	PF, DPF, TAN ϕ	PF, DPF, TAN ϕ	PF, DPF, TAN ϕ
Energy	Energy	●	●	●	●	●	●
	Forward reverse	-	-	-	●	●	●
	Peak demand	-	-	-	●	●	●
	Demand interval	-	-	-	5, 10, 15, 20, 30 min, off	5, 10, 15, 20, 30 min, off	5, 10, 15, 20, 30 min, off
Advanced measurements	Mains signaling	-	●	●	-	●	●
	Flicker	●	●	●	●	●	●
	Startup inrush	-	-	-	-	-	-
	Voltage unbalance	-	●	●	-	●	●
	Current unbalance	-	●	●	-	●	●
	Power (fund)	-	●	●	-	●	●
	Power non fund.	-	●	●	●	●	●
	Power unbalance & non fund.	-	-	-	-	●	●
	Energy loss calc.	-	-	-	-	FEA+	FEA+



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Harmonics	Distortion harmonic	THD	THD	THD	THD THC	THD THC	THD THC
	Distortion inter-harmonic	-	-	-	-	TID	TID
	Harmonics (V&A)	-	●	●	-	● (10 min)	● (10 min)
	Harmonics angles	-	-	-	-	-	-
	Power harmonics	-	-	-	-	-	-
	Inter Harmonics	-	-	-	-	●	●
Events	List: Events dips, swells, interruption, rapid voltage changes, inrush and mains signaling	Dips, swells and interruptions	Dips, swells and interruptions	Dips, swells and interruptions	-	●	●
	Sliding event ref.	-	-	-	-	●	●
	Waveform deviation trigger & event list	-	-	-	-	-	●
	Waveshape: Dips, swells and interruption	-	-	-	-	-	●
	Waveshape rapid voltage changes	-	-	-	-	-	●
	Waveshape inrush event	-	-	-	-	-	●
	RMS profile: Dips, swells and interruption	-	-	-	-	-	●
	RMS profile: Rapid voltage changes	-	-	-	-	-	●
	RMS profile: Inrush event	-	-	-	-	-	●
	RMS profile: Main signaling	-	-	-	-	-	●
	Transients cycle kHz	-	-	-	-	-	-
	Waveshape: Waveform deviation	-	-	-	-	-	●
	RMS profile Waveform deviation	-	-	-	-	-	●
	Phasor diagram	FC live	-	-	-	-	●
	PQ health	-	-	-	-	●	●
	EN 50160	-	●	●	-	●	●
	GOST 32144 2013	-	-	-	-	●	●
	3s PQ data	-	-	-	-	●	●
	Program PQ limits	●	-	-	-	●	●
Measurement standards	IEC 61000-4-7	-	-	-	Class I	Class I	Class I
	IEC 61000-4-15	-	-	-	Class FI	Class FI	Class FI
	IEC 62586-1	-	-	-	PQI-A-PI	PQI-A-PI	PQI-A-PI
	IEC 62586-2	-	-	-	●	●	●
	IEC 61000-2-2	-	-	-	●	●	●
	GOST R 51317-4-xx	-	-	-	Class A	Class A	Class A
	IEEE 1459	-	-	-	●	●	●



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Reporting/ limits standards reporting via FEA+ or FC cloud (TBA)	EN 50160	●	●	●	-	FEA+	FEA+
	D-A-CH-CZ (TOR)	●	●	●	-	Amps harmonics only in FEA+ (report Q2)	Amps harmonics only in FEA+ (report Q2)
	ITIC	-	-	-	FEA+	FEA+	FEA+
	ANSI	-	-	-	FEA+	FEA+	FEA+
	CEBEMA	-	-	-	FEA+	FEA+	FEA+
	IEEE 519	-	-	-	licence option - Incls 3 s harmonics interval	licence option - Incls 3 s harmonics interval	licence option - Incls 3 s harmonics interval
	GOST 32145	-	-	-	FEA+	FEA+	FEA+
Data formats	PQDIF	-	-	-	FEA+	FEA+	FEA+
Time sync	GPS, NTP, IRIG B	-	-	-	NTP standard, GPS module optional	NTP standard, GPS module optional	NTP standard, GPS module optional
Interface	USB	-	-	-	A, Mini B	A, Mini B	A, Mini B
	Internal USB	-	-	-	2 x A	2 x A	2 x A
	Ethernet RJ45	-	-	-	●	●	●
	Wifi	-	-	-	2	2	2
	BLE bluetooth	-	-	-	Opt	Opt	1
	Ext I/O port	-	-	-	Accessories, GPS	Accessories, GPS	Accessories, GPS
	Ethernet fiber optic	-	-	-	-	-	-
RS-232/485	RS-232	RS-232	RS-232	-	-	-	
Recording	Local logging (trend)	●	●	●	●	●	●
	Trend interval, avg. time	10 s..10 min	10 s..10 min	10 s..10 min	1 s..30 min	1 s..30 min	1 s..30 min
	Recording duration	39 days	39 days	39 days	1 min .. >1 year	1 min .. >1 year	1 min .. >1 year
	Memory	8MB	8MB	8MB	>= 1.5GB	>= 1.5GB	>= 1.5GB
	Event list	-	-	-	-	-	Dips, swells, interruptions, rapid voltage changes and inrush
	RMS recordings 1/2 cycle	-	-	-	-	-	●
	Event waveforms	-	-	-	-	-	●
PC software		PQLog	PQLog	PQLog	FEA+ with config tool	FEA+ with config tool	FEA+ with config tool
Powering	Power from measurement input	●	●	●	●	●	●
	Battery	-	-	5 hr	3 hr	3 hr	3 hr

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