## **PM7000 POWER QUALITY RECORDING ANALYZER**



### **Quick Specs**

Voltage Channels	4 (0-600 VAC)
Current Channels	4 (2 ranges- 6000A or 400.0A)
Recording Channels	32 Detailed, >470 General Parameters
Sample Rate	PM7000S @ 320 Samples/cycle PM7000H @ 2,056 Samples/cycle PM7000T @ 20,480 Samples/cycle
Memory storage for recorded data	128MB, Expandable with External Flash Drive
Communications	Bluetooth, USB, USB Flashdrive, Ethernet, Remote
Waveform Triggers	Transient, Ring, Sag, Swell, RMS Fall, THD Current, THD Voltage
Waveform Memory	32 MB
Power Requirements	90-660 VRMS(V1), 12Vdc (DC Charger)







#### **Each Unit Includes:**

- ⊘ Five Fused Voltage probes 600V
- Four 24" 6000A/400.0A Flexible Current Clamps (other lengths available)
- ⊘ Pronto for Windows Analysis Software
- ⊘ Bluetooth Adapter for Laptop or PC
- ⊘ 16GB Flash Drive for Expanded Memory
- ⊘ 12 Volt Charger & Carrying Case
- ⊘ 1 year warranty
- No cost lifetime upgrades for Software & Firmware

#### Why you should consider a PM7000

- Records 32 Detail Channels simultaneously with single cycle resolution on changes, because of our Exclusive Patented Single Cycle Adaptive Store
- Auto-ranking of waveform capture greatest disturbances-Ranger exclusive
- Compliant to IEEE 1453 Flicker Specification. Only Ranger Loggers measure Instantaneous Flicker
- Input leads fusing is Standard
- High speed sampling on ALL inputs including 4 Currents and 4 Voltages
- Interharmonics Option
- 128 MB on board memory. Expandable memory though USB Flash Port that automatically writes to drive when recording finishes
- Wireless communications to remote PC or Android Device allows access to PM7000 display, without suiting up as required by NFPA 70



# **RANGER FULL SPEC SHEET COMPARISON**

	РМ7000	PM4000	РМЗОООНГ	PM2000F	PM2000F-300	PM7000 FLM	PM7503
Voltage Channels	4 (0-600 VAC)	4 (0-600 VAC)	3 (0-525 VAC)	3 (0-300 VAC True RMS)	3 (0-300 VAC True RMS)	4 (0-600 VAC)	4 (0-600 VAC, 0-300 VDC)
Current Channels	4 (2 ranges- 6000A or 400.0A)	4 (2 ranges- 6000A or 400.0A)t	3 (2 ranges- 6000A or 400.0A)	2 (Two 0-220 Amp Rogowski Type Rigid Coil Sensors)	2 (Two 0-300 Amp Rogowski Type Rigid Coil Sensors)	4 (2 ranges- 6000A or 400.0A)	4 (0-1V RMS. Current to Voltage CT's supplied, nominal input 1A)
Detailed Recording Channels	32	32	16	16	16	32	32
General Parameters*1	$\odot$					$\odot$	$\oslash$
Sample Rate	PM7000S @ 320 Samples/cycle PM7000H @ 2,056 Samples/cycle PM7000T @ 20,480 Samples/cycle	320 Samples/cycle	3,840 Samples/sec	3,840 Samples/sec	3,840 Samples/sec	320 Samples/cycle	19.2k Samples/sec
Memory storage for recorded data	128MB	32MB	8MB, 16MB, 32MB	1MB	1MB	128MB	128MB
Expandable Memory with a memory Stick or Hard Drive	$\odot$	$\odot$				$\odot$	$\odot$
Flicker (Plt, Pst, Pinst, Pflag)	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$
Highest order of individual harmonics*2	50th (127th Optional)	50th	15th	N/A	N/A	50th (127th Optional)	50th (127th Optional)
Interharmonics	Optional					Optional	Optional
THD and THC	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$
kW	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$
KVA	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$
KVAR	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$
Power Factor	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$
Unbalance (V & I)	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$
Frequency 45-65Hz (can automatically detect 50 or 60Hz nominal)	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$
InRush Current	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$
K Factor	$\odot$	$\odot$				$\odot$	$\odot$
DC Measurement			Optional				$\odot$
Symmetrical Components	$\odot$	$\odot$	$\odot$			$\odot$	$\odot$
IEC6100-4-30	Measures to Class A or more accurate	Measures to Class A or more accurate	Class S			Measures to Class A or more accurate	Measures to Class A or more accurate

	РМ7000	PM4000	РМ3000HF	PM2000F	PM2000F-300	PM7000 FLM	РМ7503
Single Cycle Adaptive Store	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$
Time Interval Store	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$
Sag / Swell / Outage Monitoring	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$
High Speed Waveforms with AutoRanking Waveform Capture	PM7000S @ 320 Samples/cycle PM7000H @ 2,056 Samples/cycle PM7000T @ 20,480 Samples/cycle	320 Samples/cycle	3,840 Samples/sec	3,840 Samples/sec	3,840 Samples/sec	320 Samples/cycle	19.2k Samples/sec
Waveform Capture Memory	32MB	2MB	N/A	N/A	N/A	32MB	32MB
Transient detection	(both cycle & sub-cycle)	(both cycle & sub-cycle)	(down to single cycle)	(down to single cycle)	(down to single cycle)	(both cycle & sub-cycle)	(both cycle & sub-cycle)
CBEMA / ANSI / ITIC curve plots	$\odot$	$\odot$				$\odot$	$\odot$
Onboard Display			$\odot$				
Bluetooth	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$
Ethernet	Optional	Optional				Optional	$\odot$
USB or Infra-Red Communication	USB	USB	USB	Infra-Red	Infra-Red	USB	USB
Remote screen with PMScreen	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$
Remote Communications via PMGateway	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$	$\odot$
Time Synchronization over mobile phone or PC	$\odot$	$\odot$				$\odot$	$\odot$
Baud Rate	Up to 921.6k	Up to 921.6k	115.2k	115.2k	115.2k	Up to 921.6k	Up to 921.6k
Power Requirements	Powered from V1 input (90-660 VRMS, 15W Max) OR from charger input @ 12Vdc, 6W Max.	Powered from V1 input (90-660 VRMS, 15W Max) OR from charger input @ 12Vdc, 6W Max.	Powered from VI input (50-525 VRMS,) OR from charger input @ 12Vdc, 6W Max.	100-300 Vac from L1 to L2 voltage measurement or separate power supply	100-300 Vac from L1 to L2 voltage measurement or separate power supply	Powered from V1 input (90-660 VRMS, 15W Max) OR from charger input @ 12Vdc, 6W Max.	
Portable/Fixed	Ρ	Ρ	Ρ	Ρ	Ρ	Ρ	F
Dimension	9" x 7.5" x 4.3"	9" x 7.5" x 4.3"	8" x 6.5" x 3.5"	6.75" x 6.75" x 5"	6.75" x 6.75" x 6"	9" x 7.5" x 4.3"	11.3" x 8.1" x 2.8"
Weight	7.7lbs	7.7lbs	2.5lbs	2.6lbs	2.6lbs	7.7lbs	
Operating Temperature	-20 to 60°C	-20 to 60°C	-10 to 60°C	-30 to 65°C	-30 to 65°C	-20 to 60°C	-20 to 60°C
Accuracy	< 0.25% excluding sensors, +/- 2LSDs (in target ranges)	0.2%. 0.1% in reference range 20-30°C (excluding sensors). +/-2LSB.	Volts and wide range current < 0.25% True RMS Narrow range current < 1% True RMS	Voltage < 0.25% True RMS of Reading Current < 0.5% True RMS of Reading	Voltage < 0.25% True RMS of Reading Current < 0.5% True RMS of Reading	< 0.25% excluding sensors, +/- 2LSDs (in target ranges)	0.2%. 0.1% in reference range 20-30°C (excluding sensors). +/-2LSB.
Safety Rating	600V Cat IV, 1000V Cat III (Fuses removed)	600V Cat IV, 1000V Cat III (Fuses removed)	600V Cat III	600V Cat III	600V Cat III	600V Cat IV, 1000V Cat III (Fuses removed)	600V Cat III
IP Rating	IP65	IP65	IP51	N/A	N/A	IP65	IP40
Software	Pronto for Windows	Pronto for Windows	Pronto for Windows	Pronto for Windows	Pronto for Windows	Pronto for Windows	Pronto for Windows