Addendum

This addendum is applicable to the following documents:
Series PM172 Powermeters Installation and Operation Manual – BG0399 Rev.A9
Series PM174 Powermeter and Power Quality Analyzer Installation and Operation Manual - BG0411 Rev.A7
Series PM175 Powermeter and Power Quality Analyzer Installation and Operation Manual – BG0415 Rev.A6

Specification change:
PM172/174/175 add-on series with external split core current transformers (CTs) making any installation possible. The add-on series include:

- PM172XSC5 add-on power meter with 5A nominal current (up to 10A)
- PM172XSC50 add-on power meter and fault recorder with 50A nominal current (recordable current up to 100A)
- PM174/175SC5 is add-on power meter and power quality analyzer with 5A nominal current (up to 10A)
- PM174/175SC50 is add-on power meter, power quality analyzer, and fault recorder with 50A nominal current (recordable current up to 100A)

Fig. 1. PM172E with 3 external split core current transformers

The external split core current transformers are wired directly to device current inputs. To avoid any accuracy compromise, the entire cycle of calibrations is performed with the same CT set as that attached to the device when it leaves the factory. Moreover, the device comes to the end user with already wired CTs.

Important Note: Any other CTs are NOT allowed to be wired to the device.

The rear panel of PM172/174/175SC5 power meters & PQ analyzers is shown in

Fig. 2. One should pay attention that maximal allowed CT secondary current is 4 mA (corresponds to 10A primary current in the split core CT). Any higher current source (>4 mA) interfaced directly to current terminals will cause device damage.

The rear panel of PM172/174/175SC50 power meters, PQ analyzers, and fault recorders is shown in Fig. 3. One should pay attention that maximal allowed CT secondary current is 40 mA (corresponds to 100A primary current in the split core CT). Any higher current source (>40 mA) interfaced directly to current terminals will cause device damage.

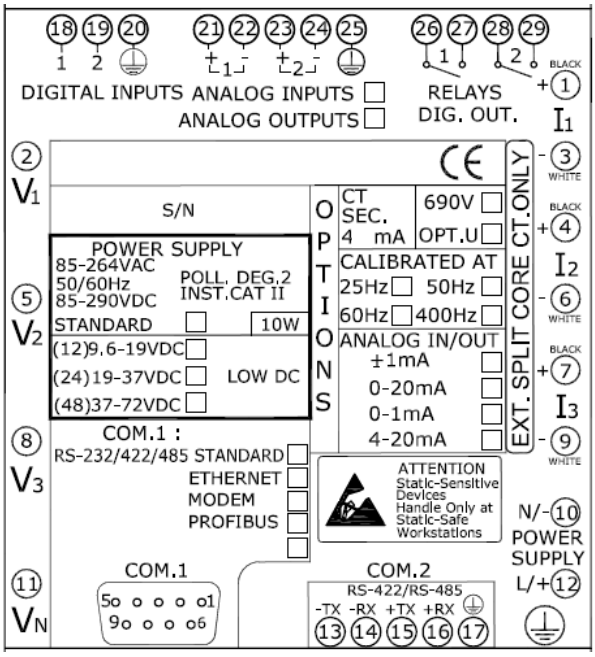

Fig. 2. Rear panel of PM172/174/175 SC5 power meters and power quality analyzers

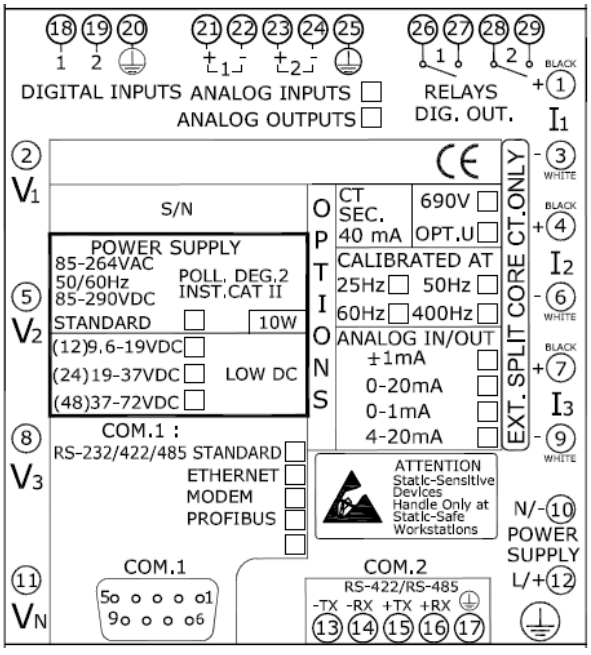

Fig. 3. Rear panel of PM172/174/175 SC50 power meters, power quality analyzers, and fault recorders

Important Device Set-up Note:

The PM172/174/175 SC50 is 50A (not 5A anymore!) input current scale device. That's why to display the current properly, in device general set-up (see corresponding PAS screen shots in Fig. 4) one should set multiplied by 10 initial primary current to keep current transformation ratio of the measurement CT unchanged.

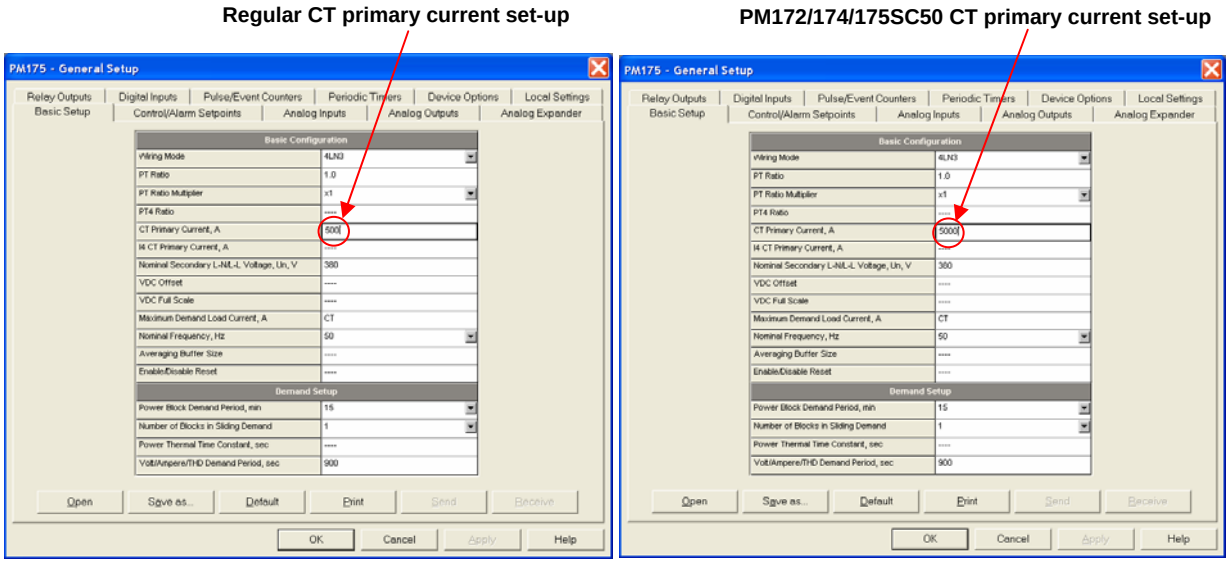

Fig. 4. In device general set-up CT primary current should be multiplied by 10 for PM172/174/175SC50 power meters, power quality analyzers, and fault recorders.

Application Note:

The add-on capability by use of external split core CTs is an unique capability developed by SATEC. The add-on PM172/174/175 SC5/SC50 device family enables:

- Retrofit power meter, PQ analyzer, and fault recorder installation in the switchboard with a CT set used by protective relays or other devices.
- Retrofit upgrade of power meter, PQ analyzer, or/and fault recorder sharing the same CT set with protective relays or other devices.
- Any other retrofit upgrade requiring fast and easy installation without power outage
- Add-on precise power metering and power quality analysis (maximal current 10A). No compromise in the PM172/174/175SC5 series accuracy
- Add-on fault recording by PM172/174/175SC50 (maximal current 100A) keeping all other important functions of PM172/174/175 series
- True add-on device family combining functions of power/energy metering, power quality analysis, and fault recording. Avoiding any impact on connection circuit by use of external split core CTs coupled to specially developed “add-on line” SATEC devices.