

Addendum

This addendum is an essential part of the following documents:

EM132-133-QUICK START GUIDE – BG0504 REV.A2 , EM13x Series SMART MULTIFUNCTION METER
 Installation and Operation Manual – BG0491 Rev. A5.

Specification change:

The EM13x series external CT makes installation easier. This option includes:

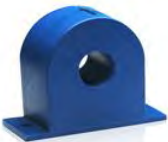
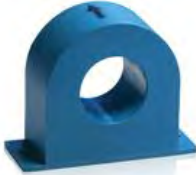
1. EM13x – RS5: 2.5mA

Group III IEC62053-22 Class 0.5S
3 x 57-400V 50/60Hz 3N 3E
ECT (solid core CT or split core CT)
Secondary output : I _{max} .(I _{max} =2 x I _n)
I _{max} =5mA (1000 Imp/kWh FOR 10A CT)
PS:40-300, 3VA max
CE

2. EM13x – HACS: 40mA (100-1200A)

Group III IEC62053-22 Class 0.5S
3 x 57-400V 50/60Hz 3N 3E
ECT (solid core CT or split core CT)
Secondary output : I _{max} .(I _{max} =2 x I _n)
I _{max} =40mA (100 Imp/kWh FOR 100A CT)
PS:40-300, 3VA max
CE

Table 1: EM13x series HACS & RS5:

ORDER STRING (Catalog no.)	CS05S / RS5 (HX0140)	CS1 (EL0072)	CS1L (EL0115)	CS1S (HX0118/HX0129)
				
RATING	10A	100A	100A	100A
WINDOW	Ø 16mm / 0.62"	Ø 12mm / 0.47"	Ø 23mm / 0.9"	Ø 16mm / 0.63"
CORE	Split	Solid	Solid	Split
ACCURACY	0.5%	0.1%	0.1%	0.5%
BURDEN	0.2 VA	0.2 VA	0.2 VA	0.2 VA
APPROX. WEIGHT	98.2g / 0.22 lbs	156.4g / 0.34 lbs	206.3g / 0.45 lbs	103.4g / 0.23 lbs

ORDER STRING (Catalog no.)	CS2S (HX0143)	CS4 (EL0117)	CS4S (HX0139)	CS8 (EL0125)
				
RATING	200A	400A	400A	800A
WINDOW	43.2x33mm / 1.7x1.3"	Ø 26mm / 1.02"	43.2x33mm / 1.7x1.3"	100x32mm / 4x1.28"
ACCURACY	0.5%	0.1%	0.5%	0.1%
CORE	Split	Solid	Split	Solid
BURDEN	0.2 VA	0.2 VA	0.2 VA	0.2 VA
APPROX. WEIGHT	460g / 1lbs	214g / 0.47 lbs	460g / 1lbs	525g / 1.16lbs

ORDER STRING (Catalog no.)	CS8S (HX0138)	CS12S (HX0137)
		
RATING	800A	1200A
WINDOW	50x80mm / 1.9x3.1"	121x80mm / 4.7x3.1"
ACCURACY	0.5%	0.5%
CORE	Split	Split
BURDEN	0.2 VA	0.2 VA
APPROX. WEIGHT	1.0kg / 2.2 lbs	1.5kg / 3.3 lbs

Technical Specifications

Frequency	50/60Hz
Lead Insulation	600V AC
Core Insulation	4000V AC
Lead Length	2.5m / 8.2ft (UL1015)
Operation Temperature	-40°C to +70°C
Storage Temperature	-40°C to +85°C
Standards Compliance	IEC 60044-1
Material	All materials are UL & ROHS approved

The installation diagrams are shown on the Fig.2.

EM13x series HACS and RS5 (split core CT) connection diagram
WHITE WIRES SIDE

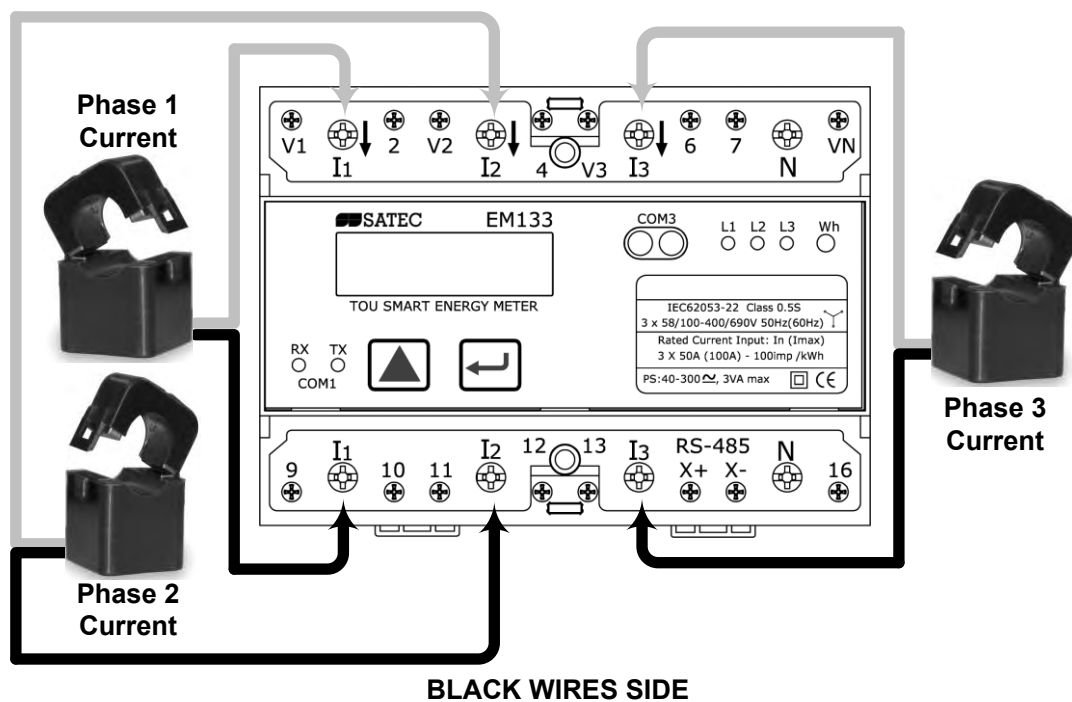


Figure 1: HACS and RS5 Split core connection diagram.

PM13x series HACS (solid core CT) connection diagram

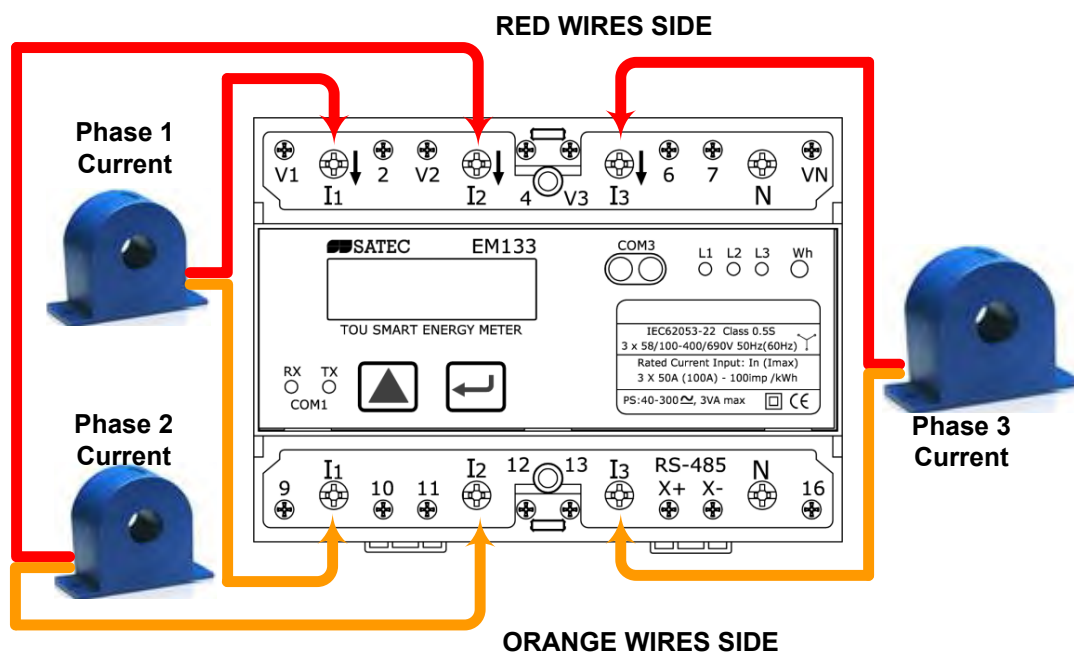


Figure 2: HACS Solid CT connection

Set CT Primary Current value to the nominal value of the used HACS (solid or split core CT)

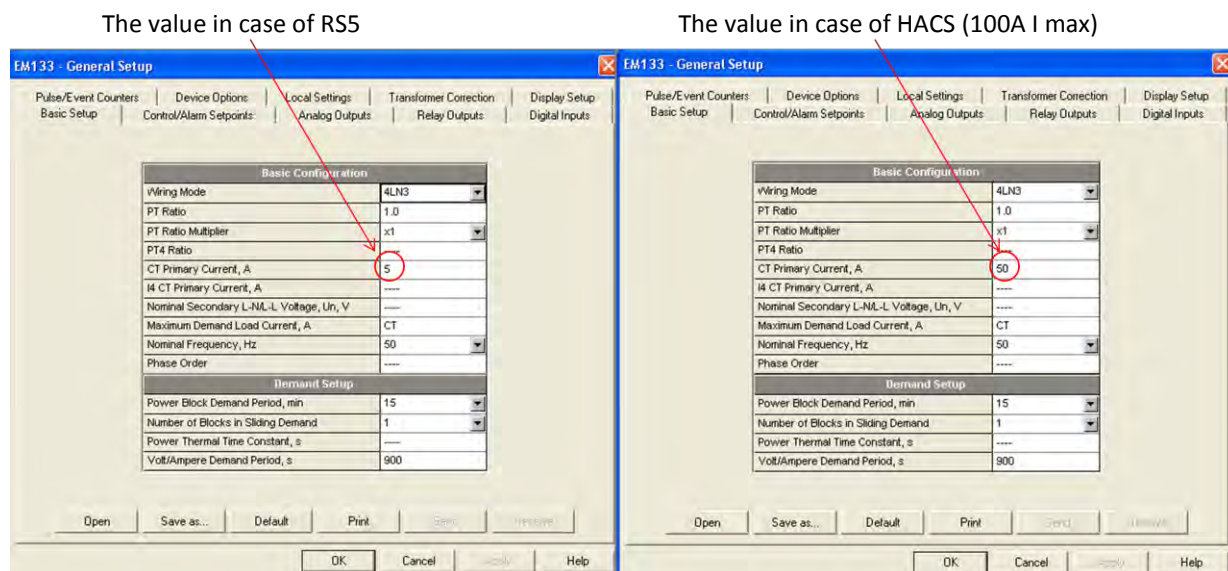


Figure 3: In device General Setup (PAS Software) "CT Primary Current" should be modified with the nominal value of the used CT (the illustrated cases are RS5 (In=5A) and HACS for 100A (In=50A)).

Note: In case of HACS $I_n = 0.5 I_{max}$ (RATING).

In case of split core CTs set transformer correction values according to CT specifications (as printed on the CT Label).

EM133 - General Setup

Basic Setup | Control/Alarm Setpoints | Analog Outputs | Relay Outputs | Digital Inputs
Pulse/Event Counters | Device Options | Local Settings | Transformer Correction | Display Setup

Instrument Transformer Correction			
Channel	Ratio Correction Factor	Phase Angle Error, (+/-) minutes	Select a transformer type to preset a CT
V1	1.000	0	----
V2	1.000	0	----
V3	1.000	0	----
V4	----	----	----
I1	0.999	25	----
I2	0.999	25	----
I3	0.999	25	----
I4	----	----	----
I5	----	----	----
I6	----	----	----
I7	----	----	----
I8	----	----	----
I9	----	----	----
I10	----	----	----
I11	----	----	----
I12	----	----	----

Open | Save as... | Default | Print | Send | Receive

OK | Cancel | Apply | Help

The illustrated example is for the following values¹ of transformer correction, printed on the package of the CT:

RATIO = 0.999

PHASE = 25

¹ If values are missing, contact support to get transformer correction values specifying CT manufacture Date Code (DC xxxx)