

Date: 19-Jan-07
 Author: iLABS -Explorer
 Team

EM 6400 Series Meter

v03.02.02, v03.02.04, 03.02.11 Consolidated Register Map

What's New in v03.02.02?

1. Old Forward, Old Reverse and Old Total Integrated Block.
2. Percentage Of Load Block
3. Phase Angle Block which contains RPM parameter also.
4. Added the New Model EM6436 v03.02.04
5. **Added the EM6436 v03.02.11:** EM6436 v03.02.11= EM6436 v03.02.04 + Frequency + run Seconds
6. **Added the new Model EM6433 v03.02.11:** RMS Parameters: Aavg, Ar,Ay,Ab, Wavg, Wr,Wy,Wb;
 Integ parameters: Wh and Run Seconds (Forward and Old)

What's New in v03.02.04?

What's New in v03.02.11?

| Sl.No. | Name | Description | Address | Datatype | EM 6400 (Basic) | EM 6400 IE | EM 6400 DM | EM 6400 DM + IE | EM 6400 THD | EM 6400 IE + THD | EM 6400 DM+THD | EM 6400 DM + IE + THD | EM 6433 v03.02.11 | EM 6434 | EM 6459 | EM 6436 v03.02.04 | EM 6436 v03.02.11 |
|---|--------------------|----------------------------|---------|----------|-----------------|------------|------------|-----------------|-------------|------------------|----------------|-----------------------|-------------------|---------|---------|-------------------|-------------------|
| Number of Registers: 100; Start Address 43901 and End Address 43999; Individual Parameter can be read using Function Code 03H. No Scaling Required | | | | | | | | | | | | | | | | | |
| 1.00 | Turbo Block | | | | | | | | | | | | | | | | |
| 1.01 | SxNy_VA | Apparent Power - avg | 43901 | Float | A | A | A | A | A | A | A | A | NA | A | NA | NA | NA |
| 1.02 | SxNy_W | Active Power -avg | 43903 | Float | A | A | A | A | A | A | A | A | A | A | NA | A | A |
| 1.03 | SxNy_VAR | Reactive Power - avg | 43905 | Float | A | A | A | A | A | A | A | A | NA | A | NA | NA | NA |
| 1.04 | SxNy_PF | Avg PF | 43907 | Float | A | A | A | A | A | A | A | A | NA | A | A | A | A |
| 1.05 | SxNy_VLL | Line to Line avg Voltage | 43909 | Float | A | A | A | A | A | A | A | A | NA | NA | A | A | A |
| 1.06 | SxNy_VLN | Line to Neutral Voltage | 43911 | Float | A | A | A | A | A | A | A | A | NA | NA | A | A | A |
| 1.07 | SxNy_A | Avg Current | 43913 | Float | A | A | A | A | A | A | A | A | A | NA | A | A | A |
| 1.08 | SxNy_Hz | Frequency | 43915 | Float | A | A | A | A | A | A | A | A | NA | NA | A | NA | A |
| 1.09 | SxNy_VA_r | R-phase Apparent Power | 43917 | Float | A | A | A | A | A | A | A | A | NA | A | NA | NA | NA |
| 1.10 | SxNy_W_r | R-phase Active Power | 43919 | Float | A | A | A | A | A | A | A | A | A | A | NA | A | A |
| 1.11 | SxNy_VAR_r | R-phase Reactive Power | 43921 | Float | A | A | A | A | A | A | A | A | NA | A | NA | NA | NA |
| 1.12 | SxNy_PF_r | R-phase PF | 43923 | Float | A | A | A | A | A | A | A | A | NA | A | A | A | A |
| 1.13 | SxNy_Vry | R-Y phase Voltage | 43925 | Float | A | A | A | A | A | A | A | A | NA | NA | A | A | A |
| 1.14 | SxNy_Vr | R-phase to Neutral Voltage | 43927 | Float | A | A | A | A | A | A | A | A | NA | NA | A | A | A |
| 1.15 | SxNy_A_r | R-phase Current | 43929 | Float | A | A | A | A | A | A | A | A | A | NA | A | A | A |
| 1.16 | SxNy_VA_y | Y-phase Apparent Power | 43931 | Float | A | A | A | A | A | A | A | A | NA | A | NA | NA | NA |
| 1.17 | SxNy_W_y | Y-phase Active Power | 43933 | Float | A | A | A | A | A | A | A | A | A | A | NA | A | A |
| 1.18 | SxNy_VAR_y | Y_phase Reactive Power | 43935 | Float | A | A | A | A | A | A | A | A | NA | A | NA | NA | NA |
| 1.19 | SxNy_PF_y | Y_phase PF | 43937 | Float | A | A | A | A | A | A | A | A | NA | A | A | A | A |
| 1.20 | SxNy_Vyb | Y_B phase Voltage | 43939 | Float | A | A | A | A | A | A | A | A | NA | NA | A | A | A |
| 1.21 | SxNy_Vy | Y_phase to Neutral Voltage | 43941 | Float | A | A | A | A | A | A | A | A | NA | NA | A | A | A |
| 1.22 | SxNy_A_y | Y-phase Current | 43943 | Float | A | A | A | A | A | A | A | A | A | NA | A | A | A |
| 1.23 | SxNy_VA_b | B_phase Apparent Power | 43945 | Float | A | A | A | A | A | A | A | A | NA | A | NA | NA | NA |
| 1.24 | SxNy_W_b | B_phase Active power | 43947 | Float | A | A | A | A | A | A | A | A | A | A | NA | A | A |
| 1.25 | SxNy_VAR_b | B_phase Reactive power | 43949 | Float | A | A | A | A | A | A | A | A | NA | A | NA | NA | NA |

| Sl.No. | Name | Description | Address | Datatype | EM 6400 (Basic) | EM 6400 IE | EM 6400 DM | EM 6400 DM + IE | EM 6400 THD | EM 6400 IE + THD | EM 6400 DM+ THD | EM 6400 DM + IE + THD | EM 6433 v03.02.11 | EM 6434 | EM 6459 | EM 6436 v03.02.04 | EM 6436 v03.02.11 |
|--------|-----------|----------------------------|---------|----------|-----------------|------------|------------|-----------------|-------------|------------------|-----------------|-----------------------|-------------------|---------|---------|-------------------|-------------------|
| 1.26 | SxNy_PF_b | B_phase PF | 43951 | Float | A | A | A | A | A | A | A | A | NA | A | A | A | A |
| 1.27 | SxNy_Vbr | B_R phase voltage | 43953 | Float | A | A | A | A | A | A | A | A | NA | NA | A | A | A |
| 1.28 | SxNy_V_b | B_phase to Neutral Voltage | 43955 | Float | A | A | A | A | A | A | A | A | NA | NA | A | A | A |

| Sl.No. | Name | Description | Address | Datatype | EM 6400 (Basic) | EM 6400 IE | EM 6400 DM | EM 6400 DM + IE | EM 6400 THD | EM 6400 IE + THD | EM 6400 DM+ THD | EM 6400 DM + IE + THD | EM 6433 v03.02.11 | EM 6434 | EM 6459 | EM 6436 v03.02.04 | EM 6436 v03.02.11 |
|--------|--------------------------|---|---------|----------|-----------------|------------|------------|-----------------|-------------|------------------|-----------------|-----------------------|-------------------|---------|---------|-------------------|-------------------|
| 1.29 | SxNy_A_b | B_phase Current | 43957 | Float | A | A | A | A | A | A | A | A | A | NA | A | A | A |
| 1.30 | SxNy_Fwd_VAh | Forward Apparent Energy | 43959 | Float | A | A | A | A | A | A | A | A | NA | A | NA | NA | NA |
| 1.31 | SxNy_Fwd_Wh | Forward Active Energy | 43961 | Float | A | A | A | A | A | A | A | A | A | A | NA | A | A |
| 1.32 | SxNy_Fwd_VARh Inductive | Forward ReActive Inductive Energy | 43963 | Float | A | A | A | A | A | A | A | A | NA | A | NA | NA | NA |
| 1.33 | SxNy_Fwd_VARh Capacitive | Forward ReActive Capacitive Energy | 43965 | Float | A | A | A | A | A | A | A | A | NA | A | NA | NA | NA |
| 1.34 | SxNy_Rev_VAh | Reverse Apparent Energy | 43967 | Float | NA | A | NA | A | NA | A | NA | A | NA | NA | NA | NA | NA |
| 1.35 | SxNy_Rev_Wh | Reverse Active Energy | 43969 | Float | NA | A | NA | A | NA | A | NA | A | NA | NA | NA | NA | NA |
| 1.36 | SxNy_Rev_VARh Inductive | Reverse Active Energy | 43971 | Float | NA | A | NA | A | NA | A | NA | A | NA | NA | NA | NA | NA |
| 1.37 | SxNy_Rev_VARh Capacitive | Reverse Active Energy | 43973 | Float | NA | A | NA | A | NA | A | NA | A | NA | NA | NA | NA | NA |
| 1.38 | SxNy_PresentDemand | Present Demand | 43975 | Float | NA | NA | A | A | NA | NA | A | A | NA | NA | NA | NA | NA |
| 1.39 | SxNy_RisingDemand | Rising Demand | 43977 | Float | NA | NA | A | A | NA | NA | A | A | NA | NA | NA | NA | NA |
| 1.40 | SxNy_MaxDM | Maximum Demand | 43979 | Float | NA | NA | A | A | NA | NA | A | A | NA | NA | NA | NA | NA |
| 1.41 | Reserved 40 | | 43981 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1.42 | Reserved 41 | | 43983 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1.43 | Reserved 42 | | 43985 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1.44 | Reserved 43 | | 43987 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1.45 | Reserved 44 | | 43989 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1.46 | Reserved 45 | | 43991 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 1.47 | SxNy_MaxDMTime | Maximum Demand Occurence Time | 43993 | Long | NA | NA | A | A | NA | NA | A | A | NA | NA | NA | NA | NA |
| 1.48 | SxNy_Fwd_Runsecs | Forward Runseconds | 43995 | Long | A | A | A | A | A | A | A | A | A | NA | NA | NA | A |
| 1.49 | SxNy_Rev_Runsecs | Reverse Runseconds | 43997 | Long | NA | A | NA | A | NA | A | NA | A | NA | NA | NA | NA | NA |
| 1.50 | SxNy_Intr | Number of Power Interruptions | 43999 | Long | A | A | A | A | A | A | A | A | NA | NA | NA | NA | NA |
| 2.00 | THD Block | Number of Registers: 12. Individual Parameter can be read using Function Code 03H. No Scaling Required | | | | | | | | | | | | | | | |
| 2.01 | SxNy_Vr_THD | R-Phase Voltage %THD | 43861 | Float | NA | NA | NA | NA | A | A | A | A | NA | NA | NA | NA | NA |
| 2.02 | SxNy_Vy_THD | Y-Phase Voltage %THD | 43863 | Float | NA | NA | NA | NA | A | A | A | A | NA | NA | NA | NA | NA |
| 2.03 | SxNy_Vb_THD | B-Phase Voltage %THD | 43865 | Float | NA | NA | NA | NA | A | A | A | A | NA | NA | NA | NA | NA |
| 2.04 | SxNy_Ar_THD | R-Phase Current %THD | 43867 | Float | NA | NA | NA | NA | A | A | A | A | NA | NA | NA | NA | NA |
| 2.05 | SxNy_Ay_THD | Y-Phase Current %THD | 43869 | Float | NA | NA | NA | NA | A | A | A | A | NA | NA | NA | NA | NA |
| 2.06 | SxNy_Ab_THD | B-Phase Current %THD | 43871 | Float | NA | NA | NA | NA | A | A | A | A | NA | NA | NA | NA | NA |
| 3.00 | Total RMS Block | Number of Registers: 20; Need to configure and Read as a Block with first and last parameter using Function Code 03H. No Scaling Required. | | | | | | | | | | | | | | | |
| 3.01 | SxNy_VA | Apparent Power - avg | 43001 | Float | A | A | A | A | A | A | A | A | NA | A | NA | NA | NA |
| 3.02 | SxNy_W | Active Power -avg | 43003 | Float | A | A | A | A | A | A | A | A | A | A | NA | A | A |
| 3.03 | SxNy_VAR | Reactive Power - avg | 43005 | Float | A | A | A | A | A | A | A | A | NA | A | NA | NA | NA |

| Sl.No. | Name | Description | Address | Datatype | EM 6400 (Basic) | EM 6400 IE | EM 6400 DM | EM 6400 DM + IE | EM 6400 THD | EM 6400 IE + THD | EM 6400 DM+ THD | EM 6400 DM + IE + THD | EM 6433 v03.02.11 | EM 6434 | EM 6459 | EM 6436 v03.02.04 | EM 6436 v03.02.11 |
|---|--------------------------|----------------------------|---------|----------|-----------------|------------|------------|-----------------|-------------|------------------|-----------------|-----------------------|-------------------|---------|---------|-------------------|-------------------|
| 3.04 | SxNy_PF | Avg PF | 43007 | Float | A | A | A | A | A | A | A | A | NA | A | A | A | A |
| 3.05 | SxNy_VLL | Line to Line avg Voltage | 43009 | Float | A | A | A | A | A | A | A | A | NA | NA | A | A | A |
| 3.06 | SxNy_VLN | Line to Neutral Voltage | 43011 | Float | A | A | A | A | A | A | A | A | NA | NA | A | A | A |
| 3.07 | SxNy_A | Avg Current | 43013 | Float | A | A | A | A | A | A | A | A | A | NA | A | A | A |
| 3.08 | SxNy_Hz | Frequency | 43015 | Float | A | A | A | A | A | A | A | A | NA | NA | A | NA | A |
| 3.09 | Reserved | | 43017 | Long | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 3.10 | SxNy_Intr | Number of interruptions | 43019 | Long | A | A | A | A | A | A | A | A | NA | NA | NA | NA | NA |
| Number of Registers: 20; Need to configure and Read as a Block with first and last parameter using Function Code 03H. No Scaling Required. | | | | | | | | | | | | | | | | | |
| 4.00 | R-Phase RMS Block | | | | | | | | | | | | | | | | |
| 4.01 | SxNy_VA_r | R-phase Apparent Power | 43031 | Float | A | A | A | A | A | A | A | A | NA | A | NA | NA | NA |
| 4.02 | SxNy_W_r | R-phase Active Power | 43033 | Float | A | A | A | A | A | A | A | A | A | A | NA | A | A |
| 4.03 | SxNy_VAR_r | R-phase Reactive Power | 43035 | Float | A | A | A | A | A | A | A | A | NA | A | NA | NA | NA |
| 4.04 | SxNy_PF_r | R-phase PF | 43037 | Float | A | A | A | A | A | A | A | A | NA | A | A | A | A |
| 4.05 | SxNy_V_ry | R-Y phase Voltage | 43039 | Float | A | A | A | A | A | A | A | A | NA | NA | A | A | A |
| 4.06 | SxNy_V_r | R-phase to Neutral Voltage | 43041 | Float | A | A | A | A | A | A | A | A | NA | NA | A | A | A |
| 4.07 | SxNy_A_r | R-phase Current | 43043 | Float | A | A | A | A | A | A | A | A | A | NA | A | A | A |
| 4.08 | SxNy_Hz_r | R_Frequency | 43045 | Float | A | A | A | A | A | A | A | A | NA | NA | A | NA | NA |
| 4.09 | Reserved | | 43047 | Long | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 4.10 | SxNy_Intr_r | Number of interruptions | 43049 | Long | A | A | A | A | A | A | A | A | NA | NA | NA | NA | NA |
| Number of Registers: 20; Need to configure and Read as a Block with first and last parameter using Function Code 03H. No Scaling Required. | | | | | | | | | | | | | | | | | |
| 5.00 | Y-Phase RMS Block | | | | | | | | | | | | | | | | |
| 5.01 | SxNy_VA_y | Y-phase Apparent Power | 43061 | Float | A | A | A | A | A | A | A | A | NA | A | NA | NA | NA |
| 5.02 | SxNy_W_y | Y-phase Active Power | 43063 | Float | A | A | A | A | A | A | A | A | A | A | NA | A | A |
| 5.03 | SxNy_VAR_y | Y_phase Reactive Power | 43065 | Float | A | A | A | A | A | A | A | A | NA | A | NA | NA | NA |
| 5.04 | SxNy_PF_y | Y_phase PF | 43067 | Float | A | A | A | A | A | A | A | A | NA | A | A | A | A |
| 5.05 | SxNy_V_yb | Y_B phase Voltage | 43069 | Float | A | A | A | A | A | A | A | A | NA | NA | A | A | A |
| 5.06 | SxNy_V_y | Y_phase to Neutral Voltage | 43071 | Float | A | A | A | A | A | A | A | A | NA | NA | A | A | A |
| 5.07 | SxNy_A_y | Y-phase Current | 43073 | Float | A | A | A | A | A | A | A | A | A | NA | A | A | A |
| 5.08 | SxNy_Hz_y | Y_Frequency | 43075 | Float | A | A | A | A | A | A | A | A | NA | NA | A | NA | NA |
| 5.09 | Reserved | | 43077 | Long | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

| Sl.No. | Name | Description | Address | Datatype | EM 6400 (Basic) | EM 6400 IE | EM 6400 DM | EM 6400 DM + IE | EM 6400 THD | EM 6400 IE + THD | EM 6400 DM+ THD | EM 6400 DM + IE + THD | EM 6433 v03.02.11 | EM 6434 | EM 6459 | EM 6436 v03.02.04 | EM 6436 v03.02.11 |
|---|----------------------------------|------------------------------------|---------|----------|-----------------|------------|------------|-----------------|-------------|------------------|-----------------|-----------------------|-------------------|---------|---------|-------------------|-------------------|
| 5.10 | SxNy_Intr_y | Number of interruptions | 43079 | Long | A | A | A | A | A | A | A | A | NA | NA | NA | NA | NA |
| Number of Registers: 20; Need to configure and Read as a Block with first and last parameter using Function Code 03H. No Scaling Required. | | | | | | | | | | | | | | | | | |
| 6.00 | B-Phase RMS Block | | | | | | | | | | | | | | | | |
| 6.01 | SxNy_VA_b | B_phase Apparent Power | 43091 | Float | A | A | A | A | A | A | A | A | NA | A | NA | NA | NA |
| 6.02 | SxNy_W_b | B_phase Active power | 43093 | Float | A | A | A | A | A | A | A | A | A | A | NA | A | A |
| 6.03 | SxNy_VAR_b | B_phase Reactive power | 43095 | Float | A | A | A | A | A | A | A | A | NA | A | NA | NA | NA |
| 6.04 | SxNy_PF_b | B_phase PF | 43097 | Float | A | A | A | A | A | A | A | A | NA | A | A | A | A |
| 6.05 | SxNy_V_br | B_R phase voltage | 43099 | Float | A | A | A | A | A | A | A | A | NA | NA | A | A | A |
| 6.06 | SxNy_V_b | B_phase to Neutral Voltage | 43101 | Float | A | A | A | A | A | A | A | A | NA | NA | A | A | A |
| 6.07 | SxNy_A_b | B_phase Current | 43103 | Float | A | A | A | A | A | A | A | A | A | NA | A | A | A |
| 6.08 | SxNy_Hz_b | B_Frequency | 43105 | Float | A | A | A | A | A | A | A | A | NA | NA | A | NA | NA |
| 6.09 | Reserved | | 43107 | Long | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 6.10 | SxNy_Intr_b | Number of interruptions | 43109 | Long | A | A | A | A | A | A | A | A | NA | NA | NA | NA | NA |
| Number of Registers: 20; Need to configure and Read as a Block with first and last parameter using Function Code 03H. No Scaling Required. | | | | | | | | | | | | | | | | | |
| 7.00 | Forward Integrated Block | | | | | | | | | | | | | | | | |
| 7.01 | SxNy_Fwd_VAh | Forward Apparent Energy | 43121 | Float | A | A | A | A | A | A | A | A | NA | A | NA | NA | NA |
| 7.02 | SxNy_Fwd_Wh | Forward Active Energy | 43123 | Float | A | A | A | A | A | A | A | A | A | A | NA | A | A |
| 7.03 | SxNy_Fwd_VARh Inductive | Forward ReActive Inductive Energy | 43125 | Float | A | A | A | A | A | A | A | A | NA | A | NA | NA | NA |
| 7.04 | Reserved | | 43127 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 7.05 | Reserved | | 43129 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 7.06 | SxNy_Fwd_VARh Capacitive | Forward ReActive Capacitive Energy | 43131 | Float | A | A | A | A | A | A | A | A | NA | A | NA | NA | NA |
| 7.07 | Reserved | | 43133 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 7.08 | Reserved | | 43135 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 7.09 | Reserved | | 43137 | Long | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 7.10 | SxNy_Fwd_Runsecs | Forward Runseconds | 43139 | Long | A | A | A | A | A | A | A | A | A | A | NA | NA | A |
| Number of Registers: 20; Need to configure and Read as a Block with first and last parameter using Function Code 03H. No Scaling Required. | | | | | | | | | | | | | | | | | |
| 8.00 | Reversed Integrated Block | | | | | | | | | | | | | | | | |
| 8.01 | SxNy_Rev_VAh | Reverse Apparent Energy | 43151 | Float | NA | A | NA | A | NA | A | NA | A | NA | NA | NA | NA | NA |
| 8.02 | SxNy_Rev_Wh | Reverse Active Energy | 43153 | Float | NA | A | NA | A | NA | A | NA | A | NA | NA | NA | NA | NA |
| 8.03 | SxNy_Rev_VARh Inductive | Reverse ReActive Inductive Energy | 43155 | Float | NA | A | NA | A | NA | A | NA | A | NA | NA | NA | NA | NA |
| 8.04 | Reserved | | 43157 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 8.05 | Reserved | | 43159 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 8.06 | SxNy_Rev_VARh Capacitive | Reverse ReActive Capacitive Energy | 43161 | Float | NA | A | NA | A | NA | A | NA | A | NA | NA | NA | NA | NA |
| 8.07 | Reserved | | 43163 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

| Sl.No. | Name | Description | Address | Datatype | EM 6400 (Basic) | EM 6400 IE | EM 6400 DM | EM 6400 DM + IE | EM 6400 THD | EM 6400 IE + THD | EM 6400 DM+ THD | EM 6400 DM + IE + THD | EM 6433 v03.02.11 | EM 6434 | EM 6459 | EM 6436 v03.02.04 | EM 6436 v03.02.11 |
|--------|----------|-------------|---------|----------|-----------------|------------|------------|-----------------|-------------|------------------|-----------------|-----------------------|-------------------|---------|---------|-------------------|-------------------|
| 8.08 | Reserved | | 43165 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

| Sl.No. | Name | Description | Address | Datatype | EM 6400 (Basic) | EM 6400 IE | EM 6400 DM | EM 6400 DM + IE | EM 6400 THD | EM 6400 IE + THD | EM 6400 DM+ THD | EM 6400 DM + IE + THD | EM 6433 v03.02.11 | EM 6434 | EM 6459 | EM 6436 v03.02.04 | EM 6436 v03.02.11 |
|--------|--|----------------------------------|---------|----------|-----------------|------------|------------|-----------------|-------------|------------------|-----------------|-----------------------|-------------------|---------|---------|-------------------|-------------------|
| 8.09 | Reserved | | 43167 | Long | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 8.10 | SxNy_Rev_Runsecs | Reverse Runseconds | 43169 | Long | NA | A | NA | A | NA | A | NA | A | NA | NA | NA | NA | NA |
| 9.00 | Total Integrated Block Number of Registers: 20; Need to configure and Read as a Block with first and last parameter using Function Code 03H. No Scaling Required. | | | | | | | | | | | | | | | | |
| 9.01 | SxNy_Tot_VAh | Total Apparent Energy | 43181 | Float | NA | A | NA | A | NA | A | NA | A | NA | NA | NA | NA | NA |
| 9.02 | SxNy_Tot_Wh | Total Active Energy | 43183 | Float | NA | A | NA | A | NA | A | NA | A | NA | NA | NA | NA | NA |
| 9.03 | SxNy_Tot_VARh Inductive | Total ReActive Inductive Energy | 43185 | Float | NA | A | NA | A | NA | A | NA | A | NA | NA | NA | NA | NA |
| 9.04 | Reserved | | 43187 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 9.05 | Reserved | | 43189 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 9.06 | SxNy_Tot_VARh Capacitive | Total ReActive Capacitive Energy | 43191 | Float | NA | A | NA | A | NA | A | NA | A | NA | NA | NA | NA | NA |
| 9.07 | Reserved | | 43193 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 9.08 | Reserved | | 43195 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 9.09 | Reserved | | 43197 | Long | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 9.10 | SxNy_Tot_Runsecs | Total Runseconds | 43199 | Long | NA | A | NA | A | NA | A | NA | A | NA | NA | NA | NA | NA |
| 10.00 | Demand Block Number of Registers: 22; Need to configure and Read as a Block with first and last parameter using Function Code 03H. No Scaling Required. | | | | | | | | | | | | | | | | |
| 10.01 | Reserved | | 43721 | Long | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 10.02 | Reserved | | 43723 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 10.03 | Reserved | | 43725 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 10.04 | Reserved | | 43727 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 10.05 | Reserved | | 43729 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 10.06 | Reserved | | 43731 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 10.07 | Reserved | | 43733 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 10.08 | SxNy_PresentDemand | Present Demand | 43735 | Float | NA | NA | A | A | NA | NA | A | A | NA | NA | NA | NA | NA |
| 10.09 | SxNy_RisingDemand | Rising Demand | 43737 | Float | NA | NA | A | A | NA | NA | A | A | NA | NA | NA | NA | NA |
| 10.10 | SxNy_TimeRemaining | Demand TimeRemaining | 43739 | Long | NA | NA | A | A | NA | NA | A | A | NA | NA | NA | NA | NA |
| 10.11 | Reserved | | 43741 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 11.00 | MaxDemand Block Number of Registers: 36; Need to configure and Read as a Block with first and last parameter using Function Code 03H. No Scaling Required. | | | | | | | | | | | | | | | | |
| 11.01 | SxNy_MaxDM | Maximum Demand | 43741 | Float | NA | NA | A | A | NA | NA | A | A | NA | NA | NA | NA | NA |
| 11.02 | SxNy_MaxDMTime | Maximum Demand Occurrence Time | 43743 | Long | NA | NA | A | A | NA | NA | A | A | NA | NA | NA | NA | NA |
| 11.03 | Reserved | | 43745 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 11.04 | Reserved | | 43747 | Long | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 11.05 | Reserved | | 43749 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 11.06 | Reserved | | 43751 | Long | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

| Sl.No. | Name | Description | Address | Datatype | EM 6400 (Basic) | EM 6400 IE | EM 6400 DM | EM 6400 DM + IE | EM 6400 THD | EM 6400 IE + THD | EM 6400 DM+ THD | EM 6400 DM + IE + THD | EM 6433 v03.02.11 | EM 6434 | EM 6459 | EM 6436 v03.02.04 | EM 6436 v03.02.11 |
|--------|---|--|---------|----------|-----------------|------------|------------|-----------------|-------------|------------------|-----------------|-----------------------|-------------------|---------|---------|-------------------|-------------------|
| 11.07 | Reserved | | 43753 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 11.08 | Reserved | | 43755 | Long | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 11.09 | Reserved | | 43757 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 11.10 | Reserved | | 43759 | Long | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 11.11 | Reserved | | 43761 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 11.12 | Reserved | | 43763 | Long | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 11.13 | Reserved | | 43765 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 11.14 | Reserved | | 43767 | Long | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 11.15 | Reserved | | 43769 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 11.16 | Reserved | | 43771 | Long | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 11.17 | Reserved | | 43773 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 11.18 | Reserved | | 43775 | Long | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 12.00 | Old Forward Integrated Block. Number Of Registers: 20; Need to configure and Read as a Block with first and last parameter using Function Code 03H. No Scaling Required. | | | | | | | | | | | | | | | | |
| 12.01 | SxNy_Old_Fwd_Vah | Old Forward Apparent Energy | 43122 | Float | A | A | A | A | A | A | A | A | NA | A | NA | NA | NA |
| 12.02 | SxNy_Old_Fwd_Wh | Old Forward Active Energy | 43124 | Float | A | A | A | A | A | A | A | A | A | A | NA | A | A |
| 12.03 | SxNy_Old_Fwd_VARh Inductive | Old Forward Reactive Inductive Energy | 43126 | Float | A | A | A | A | A | A | A | A | NA | A | NA | NA | NA |
| 12.04 | Reserved | | 43128 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 12.05 | Reserved | | 43130 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 12.06 | SxNy_Old_Fwd_VARh Capacitive | Old Forward Reactive Capacitive Energy | 43132 | Float | A | A | A | A | A | A | A | A | NA | A | NA | NA | NA |
| 12.07 | Reserved | | 43134 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 12.08 | Reserved | | 43136 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 12.09 | Reserved | | 43138 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 12.10 | SxNy_Old_Fwd_Runsecs | Old Forward Runseconds | 43140 | Float | NA | NA | NA | NA | NA | NA | NA | NA | A | NA | NA | NA | A |
| 13.00 | Old Reverse Integrated Block. Number Of Registers: 20; Need to configure and Read as a Block with first and last parameter using Function Code 03H. No Scaling Required. | | | | | | | | | | | | | | | | |
| 13.01 | SxNy_Old_Rev_Vah | Old Reverse Apparent Energy | 43152 | Float | NA | A | NA | A | NA | A | NA | A | NA | NA | NA | NA | NA |
| 13.02 | SxNy_Old_Rev_Wh | Old Reverse Active Energy | 43154 | Float | NA | A | NA | A | NA | A | NA | A | NA | NA | NA | NA | NA |
| 13.03 | SxNy_Old_Rev_VARh Inductive | Old Reverse ReActive Inductive Energy | 43156 | Float | NA | A | NA | A | NA | A | NA | A | NA | NA | NA | NA | NA |
| 13.04 | Reserved | | 43158 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 13.05 | Reserved | | 43160 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 13.06 | SxNy_Old_Rev_VARh Capacitive | Old Reverse ReActive Capacitive Energy | 43162 | Float | NA | A | NA | A | NA | A | NA | A | NA | NA | NA | NA | NA |
| 13.07 | Reserved | | 43164 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 13.08 | Reserved | | 43166 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 13.09 | Reserved | | 43168 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |

| Sl.No. | Name | Description | Address | Datatype | EM 6400 (Basic) | EM 6400 IE | EM 6400 DM | EM 6400 DM + IE | EM 6400 THD | EM 6400 IE + THD | EM 6400 DM+ THD | EM 6400 DM + IE + THD | EM 6433 v03.02.11 | EM 6434 | EM 6459 | EM 6436 v03.02.04 | EM 6436 v03.02.11 |
|--------|--|--------------------------------------|---------|----------|-----------------|------------|------------|-----------------|-------------|------------------|-----------------|-----------------------|-------------------|---------|---------|-------------------|-------------------|
| 13.10 | Reserved | | 43170 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 14.00 | Old Total Integrated Block Number Of Registers: 20; Need to configure and Read as a Block with first and last parameter using Function Code 03H. No Scaling Required. | | | | | | | | | | | | | | | | |
| 14.01 | SxNy_Old_Tot_VAh | Old Total Apparent Energy | 43182 | Float | NA | A | NA | A | NA | A | NA | A | NA | NA | NA | NA | NA |
| 14.02 | SxNy_Old_Tot_Wh | Old Total Active Energy | 43184 | Float | NA | A | NA | A | NA | A | NA | A | NA | NA | NA | NA | NA |
| 14.03 | SxNy_Old_Tot_VARh Inductive | Old Total ReActive Inductive Energy | 43186 | Float | NA | A | NA | A | NA | A | NA | A | NA | NA | NA | NA | NA |
| 14.04 | Reserved | | 43188 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 14.05 | Reserved | | 43190 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 14.06 | SxNy_Old_Tot_VARh Capacitive | Old Total ReActive Capacitive Energy | 43192 | Float | NA | A | NA | A | NA | A | NA | A | NA | NA | NA | NA | NA |
| 14.07 | Reserved | | 43194 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 14.08 | Reserved | | 43196 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 14.09 | Reserved | | 43198 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 14.10 | Reserved | | 43200 | Float | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| 15.00 | Percentage of Load Block. Number Of Registers :10; Individual Parameter can be read using Function Code 03H. No Scaling Required. | | | | | | | | | | | | | | | | |
| 15.01 | SxNy_Load_Avg | Average Load Percentage | 43881 | Float | A | A | A | A | A | A | A | A | NA | NA | A | NA | NA |
| 15.02 | SxNy_Load_r | Percentage Of R Phase Load | 43883 | Float | A | A | A | A | A | A | A | A | NA | NA | A | NA | NA |
| 15.03 | SxNy_Load_y | Percentage Of Y Phase Load | 43885 | Float | A | A | A | A | A | A | A | A | NA | NA | A | NA | NA |
| 15.04 | SxNy_Load_b | Percentage Of B Phase Load | 43887 | Float | A | A | A | A | A | A | A | A | NA | NA | A | NA | NA |
| 15.05 | SxNy_Load_Unbalanced | Unbalanced Load Percentage | 43889 | Float | A | A | A | A | A | A | A | A | NA | NA | A | NA | NA |
| 16.00 | Phase Angle Block Number Of Registers:18; Need to configure and Read as a Block with first and last parameter using Function Code 03H. No Scaling Required. | | | | | | | | | | | | | | | | |
| 16.01 | SxNy_Vn | Nutral Voltage | 43701 | Float | A | A | A | A | A | A | A | A | NA | NA | A | NA | NA |
| 16.02 | SxNy_In | Nutral Current | 43703 | Float | A | A | A | A | A | A | A | A | NA | NA | A | NA | NA |
| 16.03 | SxNy_Vr | Voltage Phase Angle r-Phase | 43705 | Float | A | A | A | A | A | A | A | A | NA | NA | A | NA | NA |
| 16.04 | SxNy_Vy | Voltage Phase Angle y-Phase | 43707 | Float | A | A | A | A | A | A | A | A | NA | NA | A | NA | NA |
| 16.05 | SxNy_Vb | Voltage Phase Angle b-Phase | 43709 | Float | A | A | A | A | A | A | A | A | NA | NA | A | NA | NA |
| 16.06 | SxNy_Ar | Current Phase Angle r-Phase | 43711 | Float | A | A | A | A | A | A | A | A | NA | NA | A | NA | NA |
| 16.07 | SxNy_Ay | Current Phase Angle y-Phase | 43713 | Float | A | A | A | A | A | A | A | A | NA | NA | A | NA | NA |
| 16.08 | SxNy_Ab | Current Phase Angle b-Phase | 43715 | Float | A | A | A | A | A | A | A | A | NA | NA | A | NA | NA |
| 16.09 | SxNy_RPM | Rotations per Minute | 43717 | Float | A | A | A | A | A | A | A | A | NA | NA | A | NA | NA |

Note:

1 Turbo, THD & Percentage of Load Blocks: These parameters can be read individually or

As a block of maximum 50 parameters incase of Turboblock, 6 parameters incase of THD, 5 parameters incase of Percentage of Load Blocks at a stretch.

| Sl.No. | Name | Description | Address | Datatype | EM 6400 (Basic) | EM 6400 IE | EM 6400 DM | EM 6400 DM + IE | EM 6400 THD | EM 6400 IE + THD | EM 6400 DM+ THD | EM 6400 DM + IE + THD | EM 6433 v03.02.11 | EM 6434 | EM 6459 | EM 6436 v03.02.04 | EM 6436 v03.02.11 |
|--------|------|-------------|---------|----------|-----------------|------------|------------|-----------------|-------------|------------------|-----------------|-----------------------|-------------------|---------|---------|-------------------|-------------------|
|--------|------|-------------|---------|----------|-----------------|------------|------------|-----------------|-------------|------------------|-----------------|-----------------------|-------------------|---------|---------|-------------------|-------------------|

2 Advisable to configure all the parameters of every blocks (except for Turbo,THD & Percentage Load block) even if you want to read just one parameter.

This is to have proper communication between Meters and your software.

3 Intr = Intr_r = Intr_y = Intr_b

4 SxNy: x = Com Port Number (1,2,3 or 4); y= node number (= MeterID)

5 NA: These parameters are not available; when queried you get zero. A: Available

6 Item gives the high byte address, the low byte is high byte - 1

7 No scaling or multiplication factor required

8 All Number are in Decimal Number System.

9 The "On Hours" parameter is available in the Meter display but not available for Meter communication

10 Phase angle Block: Voltage Phase angles (0,120,240) are hard coded (Not measured). Hence, these values are available in communication in the absence of input signals also.

However, these Voltage phase angles are not available in the meter display.