|  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Energy \& Power Quality Powermeter |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| CHARACTERISTICS/ MODEL | VIP | ELNet LTE | ELNet PFC | ELNet PICO | ELNet LT | EINet LTC 16 | ELNet GRC | ELNet PQ | ELNet MC |
| Three phase multimeter | - | - | - | - | - | - | - | - | 12 x |
| Accuracy class | 0.5 \% | 0.5 \% | 0.5 \% | 0.2 \% | 0.2 \% | 0.2 \% | 0.2 \% | 0.2 \% | 0.2\% |
| Standard Approvals: | IEC 60051-3 | IEC 60051-5 | IEC 60051-5 | IEC 62053-22 IEC 62053-23 IEC 62052-11 | IEC 62053-22 IEC 62053-23 IEC 62052-11 | IEC 60051-5 | IEC 62053-22 IEC 62053-23 IEC 62052-11 | IEC 62053-22 IEC 62053-23 IEC 62052-11 | IEC 62053-22 IEC 62053-23 IEC 62052-11 |
| 1600 samples per period |  |  |  | - | - | - | - | - | - |
| Harmonics measurements - up to |  |  |  |  | 64 | 32 | 64 | 64 |  |
| Power quality analyses |  |  |  | I-THD, U-THD | I-THD, U-THD | I-THD, U-THD | I-THD I-TDD U-THD, K-fac. | I-THD I-TDD U-THD, K-fac. |  |
| Simple operated menus | - | - | - | - | - | - | - | - | - |
| Multilingual support |  |  | $\bullet$ |  | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ | $\bullet$ |
| Data logging (in months) |  | - | 6 | 6 | 6 | 6 | 24 | 24 | 4 |
| Build in T.O.U. Energy meter |  |  | - | - | - | - | - | - | - |
| Storage of alarms up to one year |  |  |  |  |  |  | $\bullet$ | $\bullet$ |  |
| Historical log for alarms (number of alarms that can be stored) |  |  |  |  |  |  | 1000 | 1000 |  |
| Display of the stored data | Display line and phase values of U and I , currents in the neutral line, frequency, $\mathrm{P} / \mathrm{F}$, active power $P$, reactive power Q | Display line and phase values of U and I , currents in the neutral line, frequency, $P / F$, active power $P$, reactive power Q | Display line and phase values of U and I , currents at the neutral line, frequency, $P / F$, active power $P$, reactive power Q | Display line and phase values of U and I , currents at the neutral line, frequency, $P / F$ active power $P$, reactive power Q | Display line and phase values of $U$ and $I$, currents and the neutral line, frequency $P / F$ active power $P$ TDH voltage, TDH current, voltage harmonics, current harmonics | Display line and phase values of $U$ and $I$, currents and the neutral line, frequency $P / F$, active power P TDH voltage, TDH current, voltage harmonics, current harmonics | Display line and phase values <br> of U and I , currents and the neutral line, frequency $P / F$, active power $P$ TDH voltage, TDH current, K factor, voltage harmonics, current harmonics, | Display line and phase values <br> of U and I , currents and the neutral line, frequency $P / F$ active power $P$ TDH voltage, TDH current, K factor, voltage harmonics, current harmonics, | Display line and phase values of U and I , currents and the neutral line, frequency $P / F$, active power $P$, reactive power Q |
| Peak values MAX/MIN values for current and voltage | - | - | - | - | - | - | - | - | - |
| Waveform display of the signal (oscilloscope function) |  |  | - |  | - |  | - |  |  |
| Graphical display of the harmonics measurements |  |  |  |  | - | - | - | - |  |
| RS485 Communication Port MODBUS | model VIP-P | - |  | - | - | - | - | - | - |
| RS232 Communication Port MODBUS |  |  |  |  |  |  | - |  |  |
| Ethernet (TCP/IP) MODBUS + WEB server |  |  |  |  | LT TCP/IP |  | - | - | - |
| Bacnet TCP/IP protocol |  |  |  |  | LT TCP/IP |  | - | - | - |
| Bacnet MS/TP protocol |  |  |  | $\bullet$ | - |  | - | $\bullet$ | $\bullet$ |
| LCD textual/graphical display | - | - | - | $\bullet$ |  | $\bullet$ |  |  | - |
| LCD graphical color display |  |  |  |  | - |  | - | - |  |
| The resolution of the display |  |  | $128 \times 64$ | 2×12 | 320x240 | $128 \times 64$ | 320x240 | 320x240 | $4 \times 40$ |
| Panel mounting | - | - | - |  | - | - | - | - |  |
| DIN Rail monunting |  |  |  | - |  |  |  |  | - |
| Programmable Relays |  |  | 6 |  | 1 | 16 | 3 | 3 |  |
| Relay output | 1 | option |  |  |  |  |  |  |  |
| Integrated Power Factor Controller $(\cos \varphi)$ |  |  | - |  |  | - |  |  |  |
| Relay switching stages |  |  | 6 |  |  | 16 |  |  |  |
| Auto detection of capators size |  |  | - |  |  | $\bullet$ |  |  |  |
| Setup limits for high THD. |  |  | - |  |  | - |  |  |  |
| Weekly\&monthly Power Factor display |  |  | - |  |  | - |  |  |  |
| Setup limits for - Voltage \& Current Low/High |  |  | $\bullet$ |  |  | - |  |  |  |
| Setting the low load limit |  |  | - |  |  | $\bullet$ |  |  |  |
| Fast trends |  |  |  |  |  |  | $\bullet$ | $\bullet$ |  |
| History log for MIN/MAX values |  |  |  |  |  |  | - | $\bullet$ |  |
| EN50160 testing reports |  |  |  |  |  |  |  | - |  |
| On events waveform recording |  |  |  |  |  |  |  | - |  |
| Measurement of current with miniature current transformers up to 60A (separate order) |  |  |  | PICO-60 |  |  |  |  | MC60 |
| Power requirements | 85-250V AC | 85-250V AC | 85-250V AC | 85-250V AC | 85-250V AC | 85-250V AC | 85-250V AC | 85-250V AC | 85-250V AC |
| Consumption | 8 VA | 8 VA | 8 VA | 8 VA | 8 VA | 8 VA | 8 VA | 8 VA | 8 VA |
| Dimennsions (HxWxD) [mm] | 96x96x80 | 96x96x80 | $96 \times 96 \times 80$ | $96 \times 76 \times 57$ | $96 \times 96 \times 80$ | 96x159x57 | $144 \times 144 \times 100$ | $144 \times 144 \times 100$ | 110x300x60 |
| Shipping Weight | 450 g | 450 g | 650 g | 450 g | 650 g | 1.000 g | 1.000 g | 1.000 g | 1.250 g |
| Voltage | 0-650 V AC | 0-650 V AC | 0-650 V AC | $0-650 \mathrm{VAC}$ | $0-650 \mathrm{~V} \mathrm{AC}$ | 0-650 V AC | 0-650 V AC | 0-650 V AC | 0-650 V AC |
| Voltage (with transformer) | $0-99999 \mathrm{kV}$ | $0-99999 \mathrm{kV}$ | $0-99999 \mathrm{kV}$ | $0-99999 \mathrm{kV}$ | $0-99999 \mathrm{kV}$ | 0-99999 kV | 0-99999 kV | $0-99999 \mathrm{kV}$ | 0-99999 kV |
| Current (with transformer) | 0-99999 kA | 0-99999 kA | 0-99999 kA | $0-99999 \mathrm{kA}$ | 0-99999 kA | 0-99999 kA | 0-99999 kA | 0-99999 kA | 0-99999 kA |
| Maximim Input Voltage | 1000 VAC | 1000VAC | 1000VAC | 1000VAC | 1000VAC | 650 VAC | 1000VAC | 1000VAC | 650 VAC |
| Maximum Input Current | 6A | 6A | 6A | 6A | 6A | 6A | 6A | 6A | 6A |
| Working Conditions | -20 do $+70^{\circ} \mathrm{C}$ | $-20 \mathrm{do}+70^{\circ} \mathrm{C}$ | $-20 \mathrm{do}+70^{\circ} \mathrm{C}$ | $-20 \mathrm{do}+70^{\circ} \mathrm{C}$ | $-20 \mathrm{do}+70^{\circ} \mathrm{C}$ | $-20 \mathrm{do}+70^{\circ} \mathrm{C}$ | $-20 \mathrm{do}+70^{\circ} \mathrm{C}$ | $-20 \mathrm{do}+70^{\circ} \mathrm{C}$ | $-20 \mathrm{do}+70^{\circ} \mathrm{C}$ |

