

**SECTION 16430**

**METERS**

**Part 1 -Design Directives**

Each building on campus shall be metered for electrical consumption and demand on the secondary side of the building transformer. The meter shall be served by a dedicated set of current transformers wired through a shorting terminal block. When the building electrical system contains only panelboards the contractor shall provide a NEMA 1 enclosure to house the meter. The drawings shall include a detail for the field assembly and connection of meters and enclosures on panelboard installations.

Refer to section 16425 for additional details when installing the watt-hour meter into switchboards.

**Part 2 -Products**

1. *For large or high priority buildings, main meter shall be Sq D Powerlogic 4200 series, with feeders using Enercept-enhanced. Communications gateway shall be via an EGX100.*
2. *For med/smaller or lower priority buildings, main meter shall be Sq D Powerlogic 850 series, with feeders using Enercept-enhanced. Communications gateway shall be via an EGX100.*
3. *Main Meters shall be installed remotely from the main switchboards and panelboards.*
4. *All meters shall be interconnected for communications to the gateway (EGX).*
5. *Where Enercepts are used, a display shall be installed for local reading.*
6. *A data jack shall be installed in the electric room with a 3/4" conduit from the data jack to the EGX100. Data Jumper cable shall be installed by Dartmouth College or IT system contractor.*
7. *All meter systems shall be provided with manufactures start-up and training.*
8. *Main meter to have at least one D/I standard and option for adding more.*
9. *If there are other devices in the gear, such as Micrologic trip units, TVSS units, transformer fan controllers, etc. wire them in via RS-485 or dry contact D/I as appropriate*

~~General Electric EPM 7330 Digital Three Phase Power Meter configured for interface with Honeywell or Johnson DDC control systems and direct communications capability via TCP/IP output.~~

~~Power Measurement EPM 7330 Digital Three Phase Power Meter configured for interface with Honeywell or Johnson DDC controls and direct communications capability via TCP/IP output.~~

~~Cutler Hammer IQ Analyzer configured for interface with Honeywell or Johnson DDC controls and direct communications capability via TCP/IP output.~~

~~Square D Power Logic CM3250 configured for interface with Honeywell or Johnson DDC controls and direct communications capability via TCP/IP output.~~

**Part 3 -Execution**

All watt-hour meters shall be served by a dedicated set of current transformers wired through a shorting terminal block. One side of each current transformer shall be grounded. Voltage inputs are provided by a dedicated 3pole 15 amp circuit breaker. Control power is provided by a dedicated 1 pole 15 amp circuit breaker. The control power input shall be wired through a fused disconnect switch located inside the metering compartment of switchboards or the revenue meter enclosure in panelboard type installations.