IQ Data Plus II HV

IQ Data Plus II™ HV The Ultimate In Monitoring

The IQ Data Plus II HV is a microprocessor based monitoring and protective device that provides complete electrical metering and system voltage protection. The IQ Data Plus II HV is designed specifically for high voltage applications (12kV-240kV). In one compact, standard package, the IQ Data Plus II HV provides an alternative to individually mounted and wired ammeters, voltmeters, ammeter and voltmeter switches, wattmeters, watthour meters, and more.

Direct Reading Metered Values

- AC Ampere — Phase A, Phase B, Phase C — 1% Accuracy
- AC Voltage — Phase A-B, Phase B-C, Phase C-A, Phase A-Neutral, Phase B-Neutral, Phase C-Neutral — 1% Accuracy
- Watts — 2% Accuracy
- Vars — 2% Accuracy
- Power Factor — 4% Accuracy
- Frequency — 0.5% Accuracy
- Watt Demand — 2% Accuracy
- Watt Hours — 2% Accuracy

General Specifications

Style Numbers
2D78544G01 With 3-Phase power module
2D78544G02 With Single-phase power supply module

List Price (both models) **$1975**

Device's Power Requirement
3-Phase PT Burden 10 VA
C.T. Burden 0.003 VA

Frequency 50/60 Hz

Line Characteristics
- Nominal Line ±20%
- Will continue to operate in event of a phase loss

Operating Temperature 0° to 70°C (32° to 158°F)

Storage Temperature –20° to 85°C (–4° to 185°F)

Humidity 0 to 95% R.H. noncondensing

Fuses (Supplied with the unit) (3 required) ¾ ampere, 600 volts Buss type KTK-R-¾

Trip/Alarm/WH Contact Ratings
10 amperes @ 120/240 VAC (Resistive)
10 amperes @ 30 VDC (Resistive)

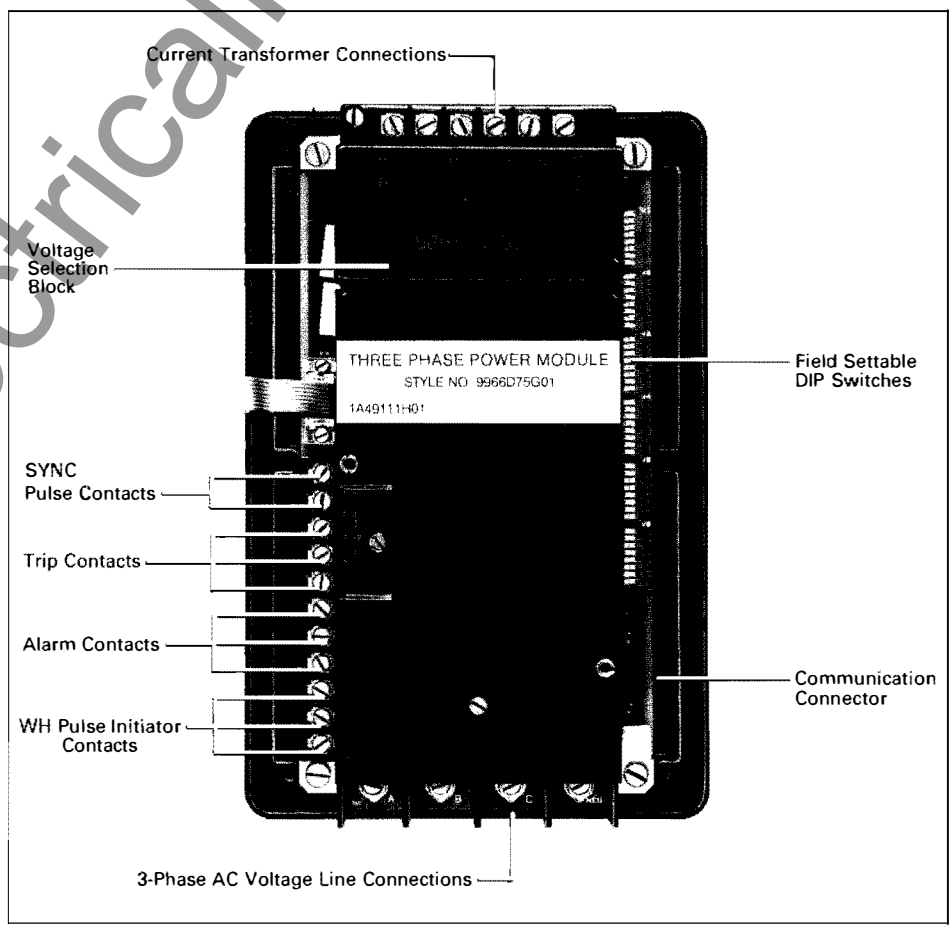
Weight 6.5 lbs

Input Ranges –
- Current Transformers – 100/5 through 5000/5
- Potential Transformers – Inputs from 12KV to 240KV
- CT & PT ratios field settable with DIP switches – refer to "Rear View"

Additional Features
- Pulse Initiation on watthour pulse as programmed by the user at certain KWH or MWH rates.
- A sync pulse contact for the demand window provides for synchronizing time with the utility. (Rated 24 VDC)
- Auto ranging of units. (units, kilounits, megaunits)
- Alternate power factor calculation. (for unbalanced and nonsinusoidal waveforms.)
- Simple electrical connections (Same as a Wattmeter)
- 50/60 Cycle
- 3 Wire or 4 Wire Systems
- Door mounted (4.5 inches depth)
- Self protected from fault
- Updated data every 1.5 seconds
- Optional communication port for two wire connection to Westinghouse INCOM network

Customer Benefits
- Space savings in structure – Replaces Ammeter, Voltmeter, Selector Switches, Wattmeter, etc.
- Standardization of design – One door mounted device
- User friendly – Field settable DIP switches
- Order simplification – 2 style numbers, relating only to power supply. Do not need to stock different face plates for different CT and PT ratios.
- One model (Style 2D78544G01) comes equipped with a three-phase power module. This unit derives power from the line being monitored
- Second model (Style 2D78544G02) is packaged with a separate source (single phase) power supply module. This unit requires 120 or 240 VAC control power.
- A 36-inch extension cable (style 7871A40G02) can be obtained for mounting power module separately from unit
- Reductions in shop wiring – Only CT & PT (current transformers, potential transformers) hook up required to a single device. No separate potential source required.
- Protection relaying included – Can be programmed active or inactive.
- Energy Management – Watts, Power Factor, Watt Demand and Vars

Rear View (2D78544G01)



- Interface capability to computer network for data collection, storage and/or printout via INCOM – The Westinghouse two-wire local area network
- Membrane faceplate designed and tested to perform in a harsh industrial environment (NEMA 3R, 12)
- Retains preset parameters through power failure with use of field settable DIP switches (no batteries).
- Nonvolatile memory for storage of readings at time of trip.
- Separate Alarm and Trip relay outputs
- UL recognized
- CSA certified
- ANSI C37.90

Field Settable Protection Functions With Trip And/Or Alarm Outputs

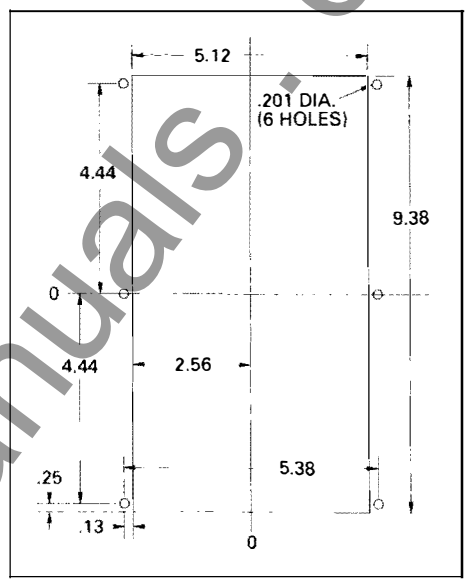
- Phase Loss (Voltage or Current)
- Phase Unbalance (Voltage)①
- Phase Reversal (Voltage)
- Overvoltage①
- Undervoltage①

① Percent trip level and trip time interval is field settable.
② Updates itself 2/sec. all other protection functions 1/sec.

Description Of Protection Functions

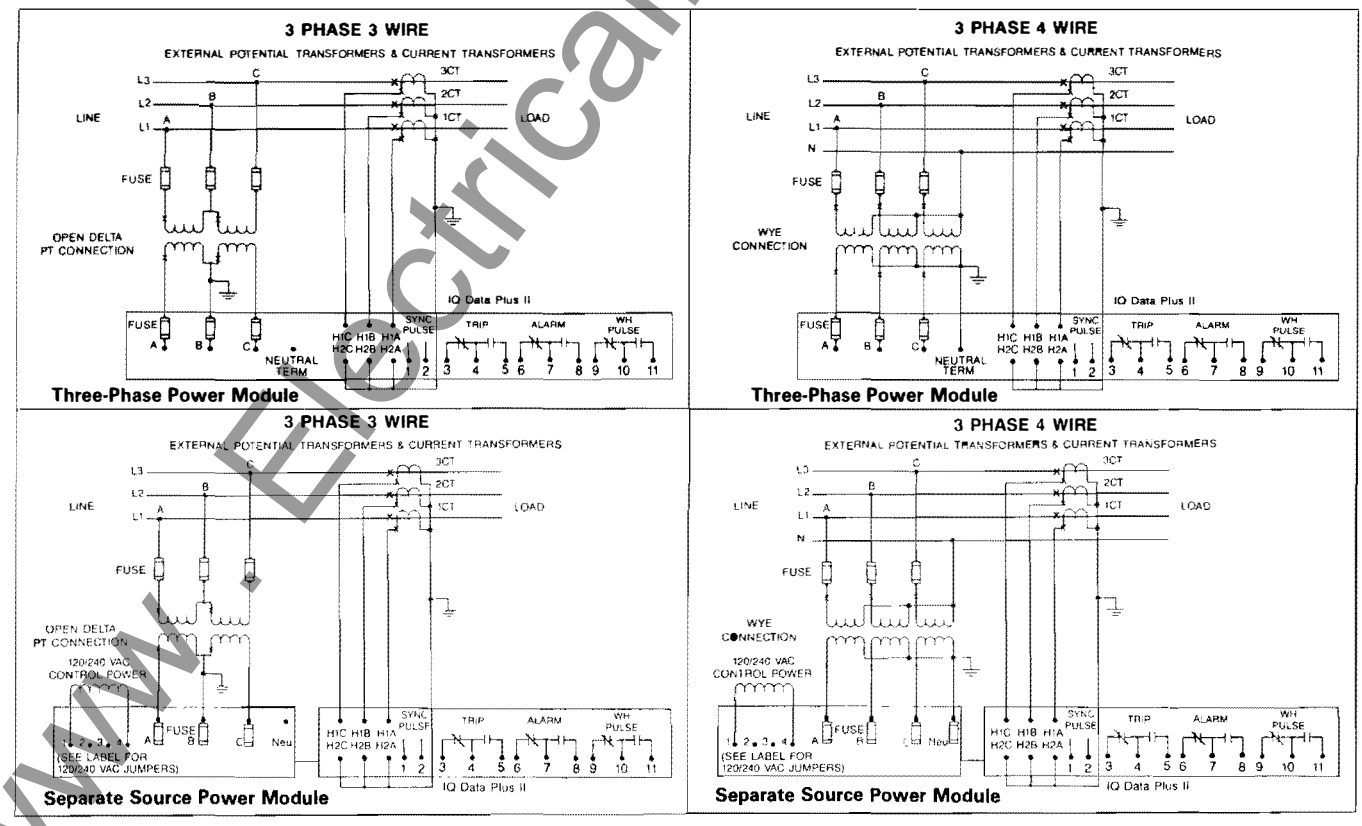
Phase Loss	Voltage – Phase loss occurs if less than 50% of nominal line voltage is detected. ②Current – Phase loss occurs if smallest phase current is less than 1/16 of the largest phase current.
Phase Unbalance	Occurs if the maximum deviation between any two phases exceeds the amount of unbalance as a percent of nominal line voltage preset by DIP switches. Range: 5 to 40% (5% increments)
Phase Reversal	Occurs if any two phases become reversed for more than one second.
Over Voltage	DIP switch setting of percent of nominal line volts. Range: 105 to 140% (5% increments)
Under Voltage	DIP switch setting of percent of nominal line volts. Range: 95% to 60% (5% increments)
Delay	Allows existence of overvoltage, undervoltage, or voltage unbalance before an alarm or trip occurs. Range: 0-8 sec. (1 sec. increment).

Drilling Pattern

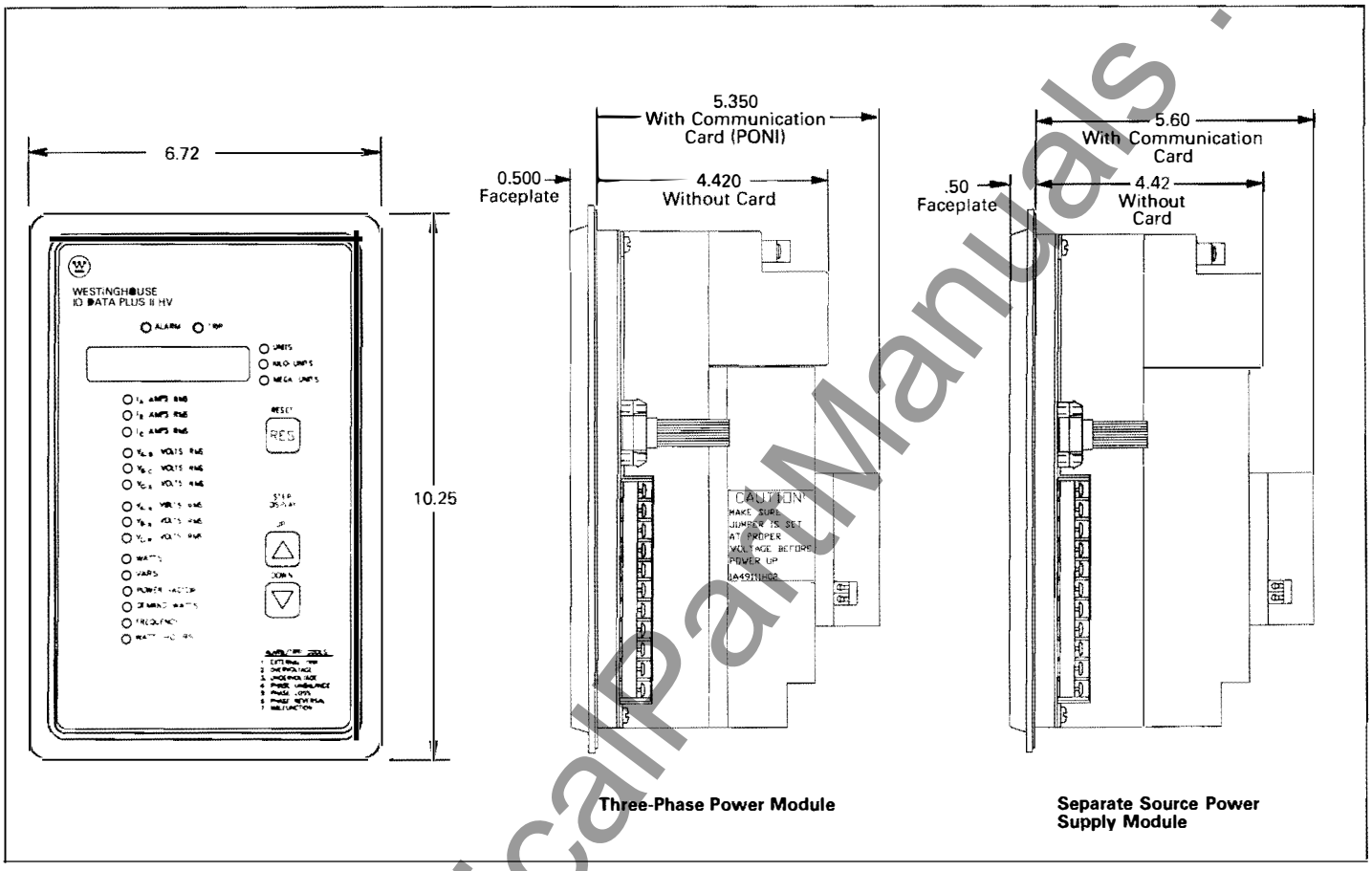


For additional pricing, see Price List 8174
For additional metering, see:
IQ Data Plus II (Descriptive Bulletin 8170)
IQ Data (Descriptive Bulletin 8171)
IQ Generator (Descriptive Bulletin 8172)

Field Wiring Connections



Dimensions (In inches)



Three-Phase Power Module

Separate Source Power Supply Module

Other members of the Westinghouse IQ family: IQ-1000, IQ Data Plus II, IQ Data, IQ Generator, Assemblies Electronics Monitor, and Device Panel.

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Pittsburgh, Pennsylvania, U.S.A. 15220

Printed in U.S.A.

July 1990