



Figure 2-1 — VI-/MI-200, VI-/MI-J00

**-IN, +IN.** DC voltage inputs. See Tables 2-1 and 2-2 for nominal input voltages and ranges for the VI-/MI-200 and VI-/MI-J00 Family converter modules (data sheets contain Low Line, 75% Max. Power and Transient ratings).

| VI-200, VI-J00 Input Voltage Ranges |       |           |       |
|-------------------------------------|-------|-----------|-------|
| Designator                          | Low   | Nominal   | High  |
| 0                                   | 10 V  | 12 V      | 20 V  |
| V                                   | 10 V  | 12/24 V   | 36 V  |
| 1                                   | 21 V  | 24 V      | 32 V  |
| W                                   | 18 V  | 24 V      | 36 V  |
| 2                                   | 21 V  | 36 V      | 56 V  |
| 3                                   | 42 V  | 48 V      | 60 V  |
| N                                   | 36 V  | 48 V      | 76 V  |
| 4                                   | 55 V  | 72 V      | 100 V |
| T                                   | 66 V  | 110 V     | 160 V |
| 5                                   | 100 V | 150 V     | 200 V |
| 6                                   | 200 V | 300 V     | 400 V |
| 7                                   | 100 V | 150/300 V | 375 V |

Table 2-1 — VI-200, VI-J00 input voltage ranges

| MI-200, MI-J00 Input Voltage Ranges |       |         |       |
|-------------------------------------|-------|---------|-------|
| Designator                          | Low   | Nominal | High  |
| 2                                   | 18 V  | 28 V    | 50 V  |
| 5                                   | 100 V | 155 V   | 210 V |
| 6                                   | 125 V | 270 V   | 400 V |
| 7                                   | 100 V | 165 V   | 310 V |

Table 2-2 — MI-200, MI-J00 input voltage ranges

**GATE OUT.** The pulsed signal at the GATE OUT pin of a regulating Driver module is used to synchronously drive the GATE IN pin of a companion Booster module to effect power sharing between the Driver and the Booster. Daisy-chaining additional Boosters (connecting GATE OUT of one unit to GATE IN of a succeeding unit) leads to a virtually unlimited power expansion capability.

**GATE IN.** The GATE IN pin on a Driver module may be used as a logic Enable / Disable input. When GATE IN is pulled low (<0.65 V @ 6 mA, referenced to -Vin), the module is turned off; when GATE IN is floating (open collector), the module is turned on. The open circuit voltage of the GATE IN pin is less than 10 V.

**-OUT, +OUT.** DC output pins. See the Table 2-3 and 2-4 below for output voltages and power levels of VI-/MI-200 and VI-/MI-J00 Family converter modules.

| VI-200, VI-J00 Standard Output Voltages |        |            |        |
|---|--------|------------|--------|
| Designator                              | Output | Designator | Output |
| Z                                       | 2 V    | 2          | 15 V   |
| Y                                       | 3.3 V  | N          | 18.5 V |
| 0                                       | 5 V    | 3          | 24 V   |
| X                                       | 5.2 V  | L          | 28 V   |
| W                                       | 5.5 V  | J          | 36 V   |
| V                                       | 5.8 V  | K          | 40 V   |
| T                                       | 6.5 V  | 4          | 48 V   |
| R                                       | 7.5 V  | H          | 52 V   |
| M                                       | 10 V   | F          | 72 V   |
| 1                                       | 12 V   | D          | 85 V   |
| P                                       | 13.8 V | B          | 95 V   |

Table 2-3 — VI-200, VI-J00 output voltage designators

| Output Voltage | Power Level |            | Power Level |           |
|----------------|-------------|------------|-------------|-----------|
|                | VI-200      | VI-J00     | MI-200      | MI-J00    |
| <5 Vdc         | 10 – 40 A   | 5 – 20 A   | 10 – 30 A   | 5 – 10 A  |
| ≥5 Vdc         | 50 – 200 W  | 25 – 100 W | 50 – 100 W  | 10 – 50 W |

Table 2-4 — Output voltage vs. power level

Special output voltages from 1 – 95 V; consult factory.

**T (TRIM).** Provides fixed or variable adjustment of the module output.

**Trimming Down.** Allows output voltage of the module to be trimmed down, with a decrease in efficiency. Ripple as a percent of output voltage goes up and input range widens since input voltage dropout (loss of regulation) moves down.

**Trimming Up.** Reverses the above effects.

**-S, +S (-SENSE, +SENSE).** Provides for locating the point of optimal voltage regulation external to the converter. Output OVP in VI-/MI-200 will trip if remote sense compensates output voltage measured at output pins above 110% of nominal. Discrete wire used for sense must be tightly twisted pair. Do not exceed 0.25 V drop in negative return; if the voltage drop exceeds 0.25 V in the negative return path, the current limit setpoint will increase. Connect +SENSE to +OUT and -SENSE to -OUT at the module if remote sensing is not desired. (Figure 7-4)