

# FLATPAC Series

50-600 WATTS SINGLE & MULTIPLE OUTPUT AC/DC LOW PROFILE

## Features

- **Inputs: 115/230VAC** autoranging
- **VDE/FCC Class A, Class B**
- **1,2 or 3 Output Models**
- **Any output: 1 to 95VDC**
- **UL, CSA, TÜV, VDE, BABT, CE, C-Tick**
- **Remote sense and current limit**
- **OVP and thermal shutdown**
- **Any output 1 to 95V**



## Specifications

### INPUT

|            |                                                                            |
|------------|----------------------------------------------------------------------------|
| Voltage    | 110-240VAC Auto ranging                                                    |
| Isolation  | Input to output: 4,242Vdc<br>Input to FG: 2,121Vdc<br>Output to FG: 707Vdc |
| Efficiency | 78%-90%                                                                    |

### OUTPUT

|                       |                     |           |
|-----------------------|---------------------|-----------|
| PRODUCT GRADE         | C, I                | E         |
| Output voltage        | See selection table |           |
| Low-High              | 50%–110%            | 70%–110%  |
| Trim voltage program  | Yes                 | Yes       |
| Voltage trim program  | Yes                 | Yes       |
| Output power          | See selection table |           |
| Current limit         | Yes                 | Yes       |
| Current limit setting | 105%–125%           | 105%–135% |
| OVP set point         | 125%                | 125%      |
| OVP and thermal       | Yes                 | Yes       |
| Temperature shutdown  | Yes                 | Yes       |
| Set point accuracy    | 0.5%                | 1%        |
| Output Ripple         | 1.5% p-p            | 3% p-p    |
| Load/Line Regulation  | 0.05% typ           | 0.5% typ  |
| Holdup Time           | 40mS                | 40mS      |
| Remote Sense          | Yes                 | Yes       |
| Compensation          | 0.5V                | 0.5V      |
| Baseplate Operating   |                     |           |
| Temperature.          | 85°C                | 85°C      |
| Shutdown Temperature  | 95°C                | 95°C      |
| BUS OK Status         | Yes                 | Yes       |
| AC OK Status          | Yes                 | Yes       |
| Module Disable        | Yes                 | Yes       |

## STANDARDS

|                  |                                                 |
|------------------|-------------------------------------------------|
| Safety standards | UL1950, 544; CSA, 950 TÜV EN60950, VDE EN60950. |
| Surge            | Meets IEC801-5, Level 3                         |
| C-Tick           | AS/NZS CISPR11 Group 1, Class A                 |
| EMC standards    | IEC801-2, IEC801-3, EN61000-4-4, EN61000-4-5    |

## MECHANICAL

|                    |                                                                                                                                                                                                                                   |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Dimensions (LxWxH) | Single Output: VI-LU: 235x64x35mm.<br>Single Output: VI-MU: 235x125x35mm.<br>Single Output: VI-NU: 235x188x35mm.<br>Dual Output: VI-PU: 235x125x35mm.<br>Dual Output: VI-QU: 235x188x35mm.<br>Triple Output: VI-RU: 235x188x35mm. |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## SELECTION TABLE

|                                                                                                                                                                                         |                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Single output                                                                                                                                                                           | VI-LU [ a ] – [ b ] [ c ] 50–200W<br>VI-MU [ a ] – [ b ] [ d ] 200–400W<br>VI-NU [ a ] – [ b ] [ e ] 300–600W |
| Dual output                                                                                                                                                                             | VI-PU [ a ] [ a ] – [ b ] [ c ] [ c ] 100–400W<br>VI-QU [ a ] [ a ] – [ b ] [ d ] [ c ] 150–600W              |
| Triple output                                                                                                                                                                           | VI-RU [ a ] [ a ] [ a ] – [ b ] [ c ] [ c ] [ c ]<br>150–600W                                                 |
| Please substitute selection character, e.g. [ a ] [ b ] [ c ], with value designator in the appropriate table below.<br># For conduction cooled models add – cc at end of model number. |                                                                                                               |

| A=Output Voltage                                        |           | B=Product Grade          |           | C=Output Power |                  |
|---------------------------------------------------------|-----------|--------------------------|-----------|----------------|------------------|
| Z=2V                                                    | Y=3.3V    | E=0°C to +85°C Case      |           | Vout ≥ 5V      | Vout < 5V        |
| 0=5V                                                    | M=10V     | C=0°C to +85°C Case      |           | Y=50W          | 10A              |
| 1=12V                                                   | 2=15V     | I=-30°C to +85°C Case    |           | X=75W          | 15A              |
| 3=24V                                                   | L=28V     |                          |           | W=100W         | 20A              |
| 4=48V                                                   |           |                          |           | V=150W         | 30A              |
| Please consult Powerbox office for other output voltage |           |                          |           | U=200W         | 40A              |
| D=Output Power / Current                                |           | E=Output Power / Current |           | Options        |                  |
| Vout ≥ 5V                                               | Vout < 5V | Vout ≥ 5V                | Vout < 5V |                |                  |
| W=100W                                                  | 20A       | S=300W                   | 60A       | CC             | Conduct'n Cooled |
| V=150W                                                  | 30A       | P=450W                   | 90A       | BM             | Bat Mod          |
| U=200W                                                  | 40A       | M=600W                   | 120A      | BC             | Bat Mod + CC     |
| S=300W                                                  | 60A       |                          |           |                |                  |
| Q=400W                                                  | 80A       |                          |           |                |                  |

# FLATPAC Series

50-600 WATTS SINGLE & MULTIPLE OUTPUT AC/DC LOW PROFILE

## Technical Illustrations ALL MODELS

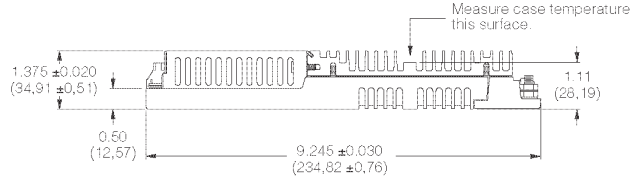
### Inputs

- 1 MOD DIS-
  - 2 MOD DIS+
  - 3 AC OK-
  - 4 AC OK+
  - 5 BUS OK-
  - 6 BUS OK+
  - 7 AC IN L1
  - 8 AC IN L2/N
  - 9 CHASSIS GND
- Input connector, Amp P/N 644488-6; mating connector, MTA-100 IDC Series
- Terminals for #16-12 AWG wire

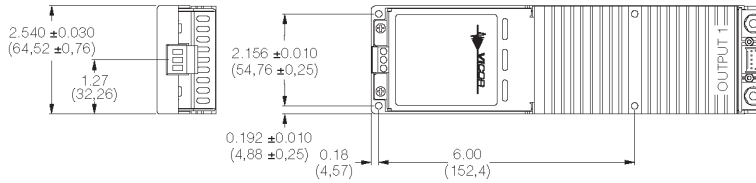
### Outputs

- 10 +OUT (#10-32 Stud)
  - 11 +OUT
  - 12 +SENSE ( $V_{TRIM}^*$ )
  - 13 TRIM ( $I_{TRIM}^*$ )
  - 14 -SENSE ( $I_{MON}^*$ )
  - 15 -OUT
  - 16 -OUT (#10-32 Stud)
- Output connector, Amp P/N 644486-5; mating connector, MTA-100 IDC Series

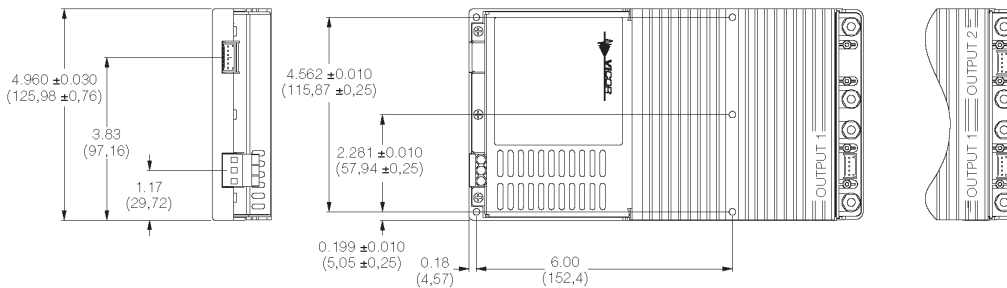
\*On FlatPACs with BatMODs only.



## LU SERIES



## MU,PU SERIES



## NU, QU, RU SERIES

### NU, QU, RU Series

