



# AMERICAN ELECTRICAL, INC.

## INDUSTRIAL ELECTRICAL ACCESSORIES

### A NEW GENERATION OF RAIL MOUNTED POWER SUPPLIES



#### WIDE RANGE

- COMPACT HOUSING - 20A, 3PH ONLY 3.39 INCHES LONG
- HORIZONTAL MOUNTING - UP TO 40A, 3 PHASE

#### OUTPUT

- 24V / 1.25 TO 20A - SINGLE PHASE
- 24V / 10, 20, AND 40A - 3 PHASE

#### UNIVERSAL INPUT

- 115 / 230 VAC
- 3 X 340 / 550 VAC

#### LOAD SHARING

- PARALLEL OPERATION
- REDUNDANCY

#### HIGH EFFICIENCY

- TYPICAL 90%

#### INCREASED OPERATING TEMPERATURE

- 100% AT 140°F

#### STATUS INDICATION

- POWER ON INDICATION
- OVERLOAD STATUS LED

#### TOUCH SAFE POWER ENTRY

- COVERED POWER ENTRY
- CONVENIENT CUSTOMER INPUT TERMINALS

#### APPROVALS

- UL / CSA AND EN 60950
- EMC CERTIFIED

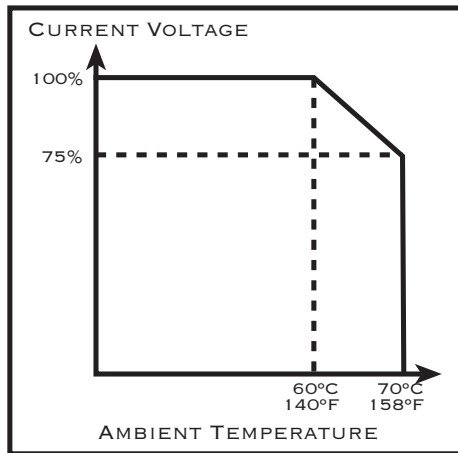
| DESCRIPTION        | AEI PART NO. | INPUT VOLTS (VAC) | PHASE | OUTPUT VOLTS (VDC) | OUTPUT CURRENT (AMPS) | POWER (WATTS) | DIMENSIONS L x W x H (INCHES) |
|--------------------|--------------|-------------------|-------|--------------------|-----------------------|---------------|-------------------------------|
| SLIM LINE          | F2400125     | 115*/230          | 1     | 24                 | 1.25                  | 30            | 1.77 x 2.83 x 4.13            |
|                    | F240050S     | 115*/230          | 1     | 24                 | 5                     | 120           | 2.76 x 5.20 x 5.47            |
|                    | F24010S      | 115*/230          | 1     | 24                 | 10                    | 240           | 2.76 x 5.81 x 6.46            |
| SLIM LINE 3 PHASE  | F24010S-3    | 3x 340-550        | 3     | 24                 | 10                    | 240           | 3.18 x 6.02 x 6.29            |
|                    | F24020S-3    | 3x 340-550        | 3     | 24                 | 20                    | 480           | 3.99 x 8.94 x 6.81            |
| HORIZONTAL         | F240025      | 115*/230          | 1     | 24                 | 2.5                   | 60            | 4.25 x 4.84 x 2.56            |
|                    | F240050      | 115*/230          | 1     | 24                 | 5                     | 120           | 5.79 x 4.84 x 3.39            |
|                    | F24010       | 115*/230          | 1     | 24                 | 10                    | 240           | 8.07 x 4.84 x 3.39            |
|                    | F24020       | 195-265           | 1     | 24                 | 20                    | 480           | 9.45 x 6.02 x 3.39            |
| HORIZONTAL 3 PHASE | F24020-3     | 3x 340-550        | 3     | 24                 | 20                    | 480           | 9.45 x 6.02 x 3.39            |
|                    | F24040-3     | 3x 340-550        | 3     | 24                 | 40                    | 960           | 11.50 x 7.28 x 5.12           |

\* INDICATES STANDARD VOLTAGE INPUTS

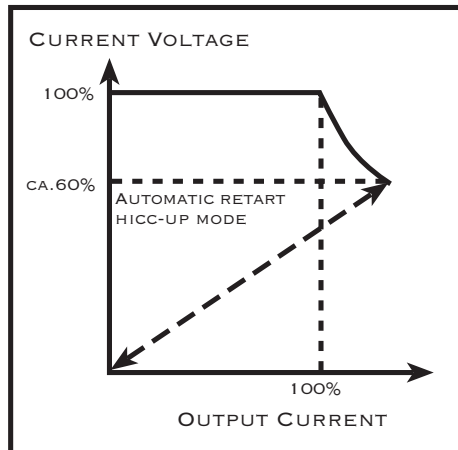


# TECHNICAL DATA

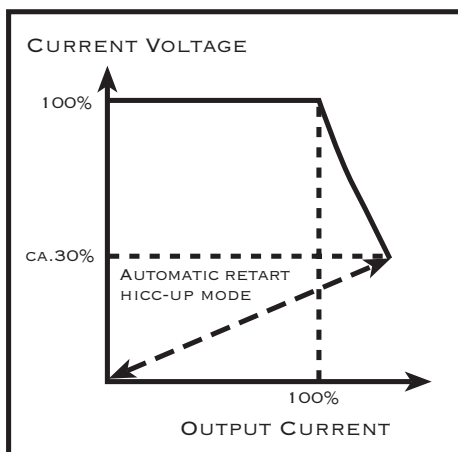
## DERATING



## CURRENT LIMITATION CURVE 1.25 A / 2 A



## CURRENT LIMITATION CURVE 5 / 10 / 20 / 40 A



## REGULATION

|                 |   |
|-----------------|---|
| LINE REGULATION | < 0.2% WITH $U_{IN} \pm 15\%$                               |
| LOAD REGULATION | < 1% WITH $0 A \rightarrow > I_{NOM}$                       |
| DYNAMICS        | < 2 MS WITH $10 \leftrightarrow 90\% I_{NOM}$<br>PEAKS < 2% |

## PROTECTION AND MONITORING

|                        |   |
|------------------------|---|
| CURRENT LIMITATION     | PROTECTION AGAINST CONTINUOUS SHORT CIRCUIT |
| OVERLOAD PROTECTION    | YES   |
| NON-LOAD PROTECTION    | YES   |
| OVERVOLTAGE PROTECTION | YES   |

## SAFETY

|                              |  |
|------------------------------|--|
| OUTPUT                       | VDE 0805 / EN 60950 / IEC 950 / UL1950 SAFETY VOLTAGE (SELV)<br>ACC. TO EN 60950 |
| PROTECTIVE SYSTEM            | CLASS I / CLASS II AT $\begin{matrix} 149002-31001 \\ 149002-21001 \end{matrix}$ |
| DEGREE OF PROTECTION         | IP 20  |
| LEAKAGE CURRENT (1.25A / 2A) | < 0.25 MA (47-63 HZ LINE FREQUENCY)  |
| LEAKAGE CURRENT (5A / 10A)   | < 0.75 MA (47-63 HZ LINE FREQUENCY)  |
| LEAKAGE CURRENT (20A / 40A)  | < 3.50 MA (47-63 HZ LINE FREQUENCY)  |

## EMV - CERTIFIED

|  |  |
|--|--|
| RFI SUPPRESSION                                    | EMISSION (EN 50081-1/-2)<br>EN 55011 / EN55022 CLASS B                   |
|  | IMMUNITY<br>(EN 50082-1, EN 61000-6-2)                                   |
| STATIC DISCHARGE ESD<br>IEC 1000-4-2               | ACC. TO EN 61000-6-2<br>8kV CONTACT DISCHARGE<br>15kV FREE AIR DISCHARGE |
| ELEKTROMAGNETIC FIELDS<br>IEC 1000-4-3             | ACC. TO EN 61000-4-3<br>10V/M  |
| BURST<br>IEC 1000-4-4                              | ACC. TO EN61000-4-4<br>4kV INPUT<br>2kV OUTPUT / AC-COUPLED              |
| SURGE<br>IEC 1000-4-5                              | ACC. TO EN61000-4-5<br>4kV ASYMMETRIC<br>4kV SYMMETRIC                   |
| FORM OF ELECTRICAL<br>INTERFERENCE<br>IEC 1000-4-6 | ACC. TO EN 61000-4-6<br>10 V, 150 KHZ ... 80 MHZ                         |

## OPERATIONAL DATA

|                                      |  |
|--------------------------------------|--|
| TEMPERATURE RANGE                    | -10°C / 14°F TO +70°C / 158°F<br>WITH FREE CONVECTION                    |
| POWER DERATING                       | 2.5% / K FROM +60°C / 140°F<br>(SEE DIAGRAM)                             |
| STORAGE TEMPERATURE                  | -25°C / -13°F TO +85°C / 185°F   |
| STATIC DISCHARGE ESD<br>IEC 1000-4-2 | ACC. TO EN 61000-6-2<br>8kV CONTACT DISCHARGE<br>15kV FREE AIR DISCHARGE |

## INSTALLATION

|                   |   |
|-------------------|---|
| INSTALLATION      | EASY ACCESS MOUNTING BRACKET<br>FOR RAIL<br>DIN EN 50022-35             |
| MOUNTING POSITION | UPRIGHT WITH INPUT TERMINALS ON<br>TOP. OUTPUT TERMINALS<br>UNDERNEATH. |