




FEATURES

- EN61000-3-2 Class A and D Compliant
- Power Factor 0.98 Typical
- Overvoltage Protection
- Overcurrent Protection
- Thermal Protection
- Power Fail Detection
- 100% Burn In at Full Load
- Remote Sense (Outputs #1 & #2)
- Remote Inhibit
- RoHS Compliant 
- CE Mark / CB Report



UL60601-1, CSA C22.2 No. 601.1
File No. E178020



TÜV EN60601-1

INPUT SPECIFICATIONS

Input voltage : 90 to 264VAC
Input frequency : 47 to 63Hz
Input current : 10A (rms) for 115VAC
 5A (rms) for 230VAC
Earth leakage current : 100uA max. @115VAC, 60Hz
 165uA max. @230VAC, 60Hz

OUTPUT SPECIFICATIONS

Output voltage/current : See rating chart (Page 2)
Total output power : See rating chart (Page 2)
Ripple and noise : 2% peak to peak maximum
Overvoltage protection : Provided on output #1 only. Set at 115 - 140% of nominal output voltage
Overcurrent protection : All outputs protected to short circuit conditions
Temperature coefficient : All outputs ±0.04%/°C maximum
Transient response : Maximum excursion of 4% or better on all models, recovering to 1% of final value within 500us after a 25% step load change
PFD Signal: TTL logic high for normal operation and TTL logic low upon loss of input power. Signal appears at least 1ms prior to master output dropping 5% below its nominal value. Signal also provides a minimum delay of 100ms after master output is within regulation.
Remote Inhibit: Requires an external TTL high level signal to inhibit outputs for standard models.

SAFETY SPECIFICATIONS

UL/cUL 60601-1, TUV EN60601-1
 CE Mark(LVD)
 CB Report

Note: Designed for medical applications, not life support equipment.

ENVIRONMENTAL SPECIFICATIONS

Operating temperature : 0°C to +70°C
Storage temperature : -40°C to +85°C
Relative humidity : 5% to 95% non-condensing
Derating : Derate from 100% power at +50°C linearly to 50% power at +70°C

GENERAL SPECIFICATIONS

Switching frequency : 70KHz ±110KHz
Power factor : 0.98 typical
Efficiency : 80% minimum
Hold-up time : 12 msec minimum at 110VAC
Line regulation : ±0.2% maximum at full load
Inrush current : 50A @ 115VAC or 100A @ 230VAC, at 25°C cold start
Withstand voltage : 4000VAC from input to output
 1500VAC from input to ground
 500VAC from output to ground
MTBF : 300,000 hours minimum at full load
 At 25°C ambient, calculated per MIL-HDBK-217F

EMI SPECIFICATIONS (EN60601-1-2)

EN55011: Class B conducted, Class A radiated
EN61000-3-2: Harmonic distortion, Class A and D
EN61000-3-3: Line flicker
EN61000-4-2: ESD, ± 8KV air and ± 6KV contact
EN61000-4-3: Radiated immunity, 3V/m
EN61000-4-4: Fast transient/burst, ±2KV
EN61000-4-5: Surge, ± 1KV diff., ± 2KV com.
EN61000-4-6: Conducted immunity, 3Vrms
EN61000-4-8: Magnetic field immunity, 3A/m
EN61000-4-11: Voltage dips, 30% reduction for 500ms, 60% reduction for 100ms and >95% reduction for 10ms



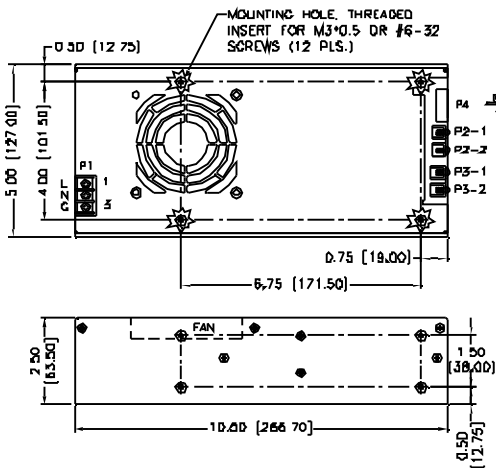
OUTPUT VOLTAGE/CURRENT RATING CHART

Table with 15 columns: MODEL, Output #1 (Vnom, Imin, Imax, Tol), Output #2 (Vnom, Imin, Imax, Tol), Output #3 (Vnom, Imin, Imax, Tol), and Max. Output Power. Lists models PM650-12 through PM650-37 with their respective ratings.

NOTES:

- 1. Add suffix "B" for U-bracket format or "C" for enclosed format with fan control function, e.g. PM650-14C.
2. All outputs are floating. It can be connected externally for positive or negative output.
3. Output #1 can be adjusted within +/- 5% of their nominal voltage.
4. Output #3 can be adjusted within +/- 15% of their nominal voltage.
5. 650-700 watts for "C" version with cover-and-fan assembly. 325-350 watts for "B" version without moving air (maximum current of output #1 and #2 derated to 70%), or 650 watts with 50 CFM forced air provided by user.
6. All models may operated at no-load. At no-load, output voltage tolerance increases to 10%.

MECHANICAL SPECIFICATIONS

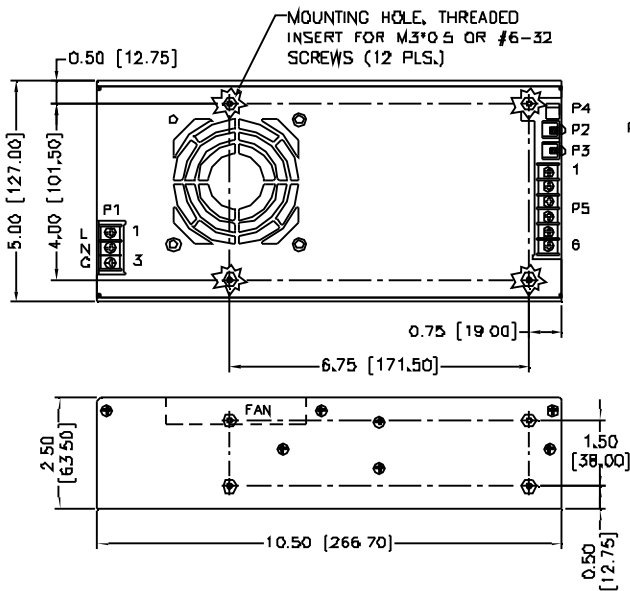


Single Output Models

- NOTE:
1. Dimensions shown in inch [mm].
2. Tolerance 0.02 [0.5] maximum.
3. Input connector P1 is Dinkle DT-35-BD1W -03 series are M3, Nickel plated.
4. Connector P4 mates with Molex housing 30-37-2103 and pins 3263.
5. P2-1, P2-2, P3-1 & P3-2 M3*0.5 screw connectors.
6. Weight.



MECHANICAL SPECIFICATIONS



Multiple Output Models

- NOTE:**
1. Dimensions shown in inch [mm]
 2. Tolerance 0.02 [0,5] maximum.
 3. Input connector P1 is Dinkle DT-35-B01W -03 screws are M3, Nickel plated.
 4. Connector P4 mates with Molex housing 50-37-5103 and pins 5263
 5. P2,P3: M3*0.5 screw connections.
 6. Output connector P5 is Dinkle DT-35-B01W-06 screws are M3, Nickel plated.
 7. Weight:

PIN CHARTS

Single Output Models

MODEL	CONN PIN	P1 (AC)			P2	P3	P4			
		1	2	3			1	2	3	4
PM650-12 PM650-14 PM650-16 PM650-18	PM650-13 PM650-15 PM650-17	LIVE	NEUTRAL	GROUND	+V	-V	SIGNAL GROUND (-V)	+S (V)	-S (V)	PFD

MODEL	CONN PIN	P4					
		5	6	7	8	9	10
PM650-12 PM650-14 PM650-16 PM650-18	PM650-13 PM650-15 PM650-17	INHIBIT +Ve	INHIBIT -Ve	N.C.	N.C.	0V (FAN)	FAN

Multiple Output Models

MODEL	CONN PIN	P1 (AC)			P2	P3	P4			
		1	2	3			1	2	3	4
PM650-20 PM650-22 PM650-24 PM650-31 PM650-33 PM650-35 PM650-37	PM650-21 PM650-23 PM650-30 PM650-32 PM650-34 PM650-36	LIVE	NEUTRAL	GROUND	+V1	-V1	SIGNAL GROUND (-V)	+S (V1)	-S (V1)	PFD

MODEL	CONN PIN	P4						P5					
		5	6	7	8	9	10	1	2	3	4	5	6
PM650-20 PM650-22 PM650-24	PM650-21 PM650-23	INHIBIT +Ve	INHIBIT -Ve	+S (V2)	-S (V2)	0V (FAN)	FAN	+V2	+V2	-V2	-V2	N.C.	N.C.
PM650-30 PM650-32 PM650-34 PM650-36	PM650-31 PM650-33 PM650-35 PM650-37							+V2	+V2	-V2	-V2	+V3	-V3