

# TEK400MRx Series

400 Watt U-Frame Switching Power Supply  
Single Outputs ranging from 2.0~58 VDC



## Product Features:

- Universal AC input with Power Factor Correction
- Safety Approved for Medical Applications
- Small Size of:
  - only 8.00 x 5.00 x 1.60" (U-Frame)
  - only 9.00 x 5.00 x 1.60" (End-Mount Fan Package)
- Full Featured Status & Control Signals
- 50~100% Voltage Margin Range
- Auxiliary Fan Output Function
- EN61000-3-2 / IEC100-3-2 Compliant
- Worldwide Safety Approvals
- EN55022 & FCC Class B Emissions
- CE Mark



## INPUT SPECIFICATIONS:

VOLTAGE	Universal VAC Input (90-264 VAC)
FREQUENCY	47-63Hz
INRUSH	35 @ 230VAC (Max Cold Start)
CURRENT	6.35A @ 90 VAC (Max Continuous)
PROTECTION	Dual 8A Fuse / 250 VAC
LEAKAGE	<150uA Max @ 264 VAC
HOLD-UP	20ms Minimum (80% Load)
HARMONICS	EN61000-3-2 Class D Compliant

## OUTPUT SPECIFICATIONS:

ADJUSTMENT RANGE	±5 % (Minimum)
MINIMUM LOAD	None
LINE REGULATION	±1% Max over entire input range
LOAD REGULATION	±1% maximum
RIPPLE	±1% or 50mV pk-k max, whichever is greater (20MHz)
SETPOINT ACCURACY	±1%
OVER CURRENT	110~140% (Auto-Recovery)
OVER VOLTAGE PROTECTION	Latches >130% of Vnom

## STATUS & CONTROL SPECIFICATIONS:

REMOTE SENSE	Compensates for up to 250mV Drop
REMOTE ON/OFF	Low Signal turn off the supply
AC FAIL	Low = AC input <80VAC
POWER GOOD	Signal goes low <1ms before loss of DC Regulation
REMOTE MARGIN	0.4~5.0 Signal for 50~100 Voltage Adjustment
AUXILIARY FAN	12V @ 400mA
CURRENT SHARE (OPTION)	±10% Accuracy (4 units maximum)

## GENERAL SPECIFICATIONS:

OPERATING TEMPERATURE	0 ~ +70°C (Derate 2.5% per °C above 50°C), Option "I" = -40~+75°C
STORAGE TEMPERATURE	-40 ~ +85°C
COOLING	18cfm Airflow for Full Load
HUMIDITY	5-95% (non-condensing)
VIBRATION	10-55Hz, 2G, 3Min Period, / 60 min each (3 axes)
SHOCK	20G Peak Acceleration
RELIABILITY	>100k Hrs (according to MIL-HBK-217F) at 30°C

## EMISSIONS:

EMISSIONS	EN55011 Level B (Conducted) / FCC Level B
ELECTROSTATIC DISCHARGE	EN61000-4-2, 4kV Contact / 8kV Air
RADIED SUSCEPTIBILITY	EN61000-4-3, 26-1000MHz, 10V/M, 80%AM
EFT / BURSTS	EN61000-4-4, 2kV
SURGES	EN61000-4-5, 2kV Earth, 1kV Line-Line
CONDUCTED IMMUNITY	EN61000-4-6, 0.15-800MHz, 10V 80%
VOLTAGE DIPS	EN61000-4-10, 95% Dip & 10ms, 30% Dip & 500ms
VOLTAGE INTERRUPTIONS	EN61000-4-11, 95% reduction, 5ms
FLUCTUATIONS & FLICKER	EN61000-3-3

## SAFETY STANDARDS:

UL /CUL	60601-1
CSA	22.2 No. 60601-1
TUV	EN60601-1
CB	IEC60601-1
CE MARK	Low Voltage Directive



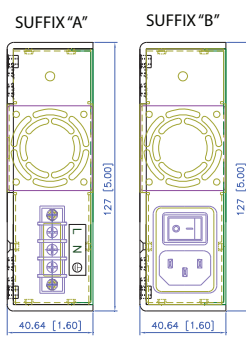
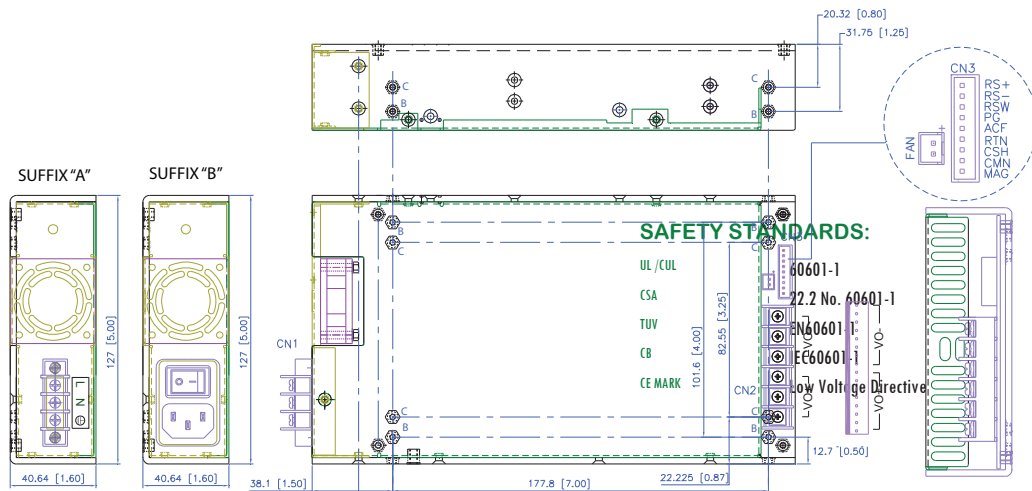
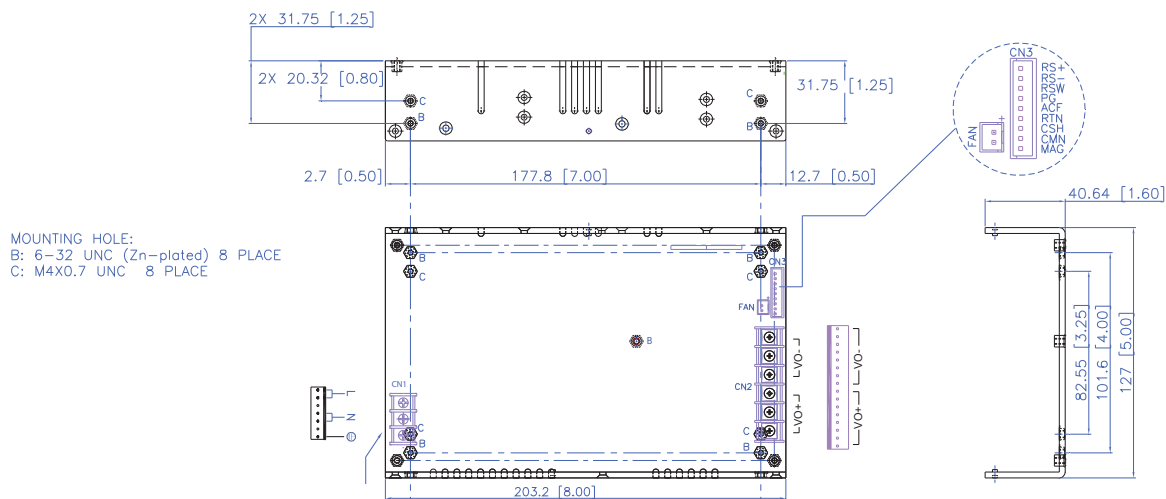
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PART #	OUTPUTS				NOTE
	V1 / A1	V2 / A2	V3 / A3	V4 / A4	
TEK400MRx-03	3.3V 60.0A				Factory Setpoint 2.0~3.3 VDC
TEK400MRx-05	5.0V 60.0A				Factory Setpoint 5.0~6.0 VDC
TEK400MRx-12	12V 33.3A				Factory Setpoint 12~15 VDC
TEK400MRx-18	18V 22.22A				Factory Setpoint 16~21 VDC
TEK400MRx-24	24V 16.67A				Factory Setpoint 22~30 VDC
TEK400MRx-36	36V 11.11A				Factory Setpoint 31~41 VDC
TEK400MRx-48	48V 8.33A				Factory Setpoint 42~58 VDC

- Consult LHV for any Output Voltage within the specified Factory Setpoint Ranges above (All safety approvals are maintained)
- Replace "x" with the options below to designate preferred mechanical package: U = U-Frame Package E = Enclosed with Fan Type
- For Enclosed Models only, Add Suffix to designate Input Connector: "A" = Terminal Block | "B" = IEC-320 with Switch
- Default Connections are Terminal Block (no suffix required):
  - Add the Suffix "C" to designate Molex Output Connector for Enclosed Models
  - Add the Suffix "T" to designate Terminal Block Input / Molex Output Connector for U-Frame Models
  - Add the Suffix "H" to designate Molex Input & Output Connectors for U-Frame Models
- Add the Suffix "(I)" to designate Current Share Option
- Input Connector (CN1): mating Molex Part No. 09-91-0700 equivalent (7 pin, 5 used), or Howder Terminal block Part No. HD-121-3P or IEC-320 Inlet.
- Output Connector (CN2): Mating Molex 16 pins (09-91-1600), or Howder (HD-121-6P) M3.5, 8 pins terminal block, 9.5MM Center.
- Logic signal connectors (CN3): Mating JST XHP-9 or equivalent (CHYAO SHIUNN JS-2001-09) Mating Pins: JST SXH-002T-P0.6 for AWG 30 to 26.
- Mounting Inserts: 6-32, M4 4 Places individually with maximum penetration 0.15 inches on bottom side and 0.25 inch on both side.



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