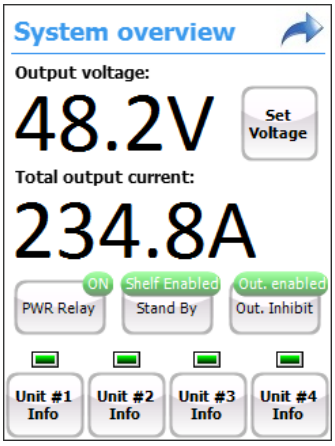
TCR-4-48G

DEMO Rack for TCP3500 Power Supplies

The TCR-4-48G power rack can be configured with four TCP3500 Series units delivering up to 14 kW of output power. It can be mounted to a 19 inch rack systems using adaptor mounting brackets. Two internal RS485 interfaces are used for control, monitoring and diagnostic information that can be supplied to a system controller. Water cooling base plate makes the TCR-4-48G suitable for a wide variety of Industrial Applications where the liquid cooling is required.



RoHS Compliant



Standard Functions

- 19” Rack with liquid-cooling Base Plate
- Compatible with all TCP3500 PSU models
- Maximal Configuration up to 4 Units (14 kW)
- 3-phase Solid State Relay for power modules AC input driving
- Low Inductance DC output busbars construction
- Two RS485 interfaces (PSU’s Control/Monitor and Digital Control of Output Voltage)
- Coolant temperature (water): 0 to 35°C with minimal flow rate 2 l/min. (recommended 4 l/min.)

Optional

- 3.2” Touch Screen Display on front panel with Smart monitoring and control menu
- Input and Output water temperature measurement
- Auxiliary output 24 V / 120 W
- USB Interfaces for system monitoring and control via PC and SW GUI

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Figure 1. 19" Rack rear view – AC input connector, DC output busbars, signal connectors and coolant (water) connecting

1. TCP3500 SERIES MODEL SELECTION

MODEL	INPUT VOLTAGE RANGE	NOMINAL OUTPUT VOLTAGE	OUTPUT VOLTAGE RANGE	MAX OUTPUT CURRENT	MAX OUTPUT POWER	AVAILABILITY
TCP3500-H048G	180 – 528 Vrms, 50/60 Hz	48 V	Adjustable 10 – 50 VDC	73 ADC or pulse[1]	3500 W	Mass production
TCP3500-1048G	180 – 528 Vrms, 50/60 Hz	48 V	Adjustable 10 – 50 VDC	73 ADC	3500 W	Mass production
TCP3500-H060G	180 – 528 Vrms, 50/60 Hz	60 V	Adjustable 20 – 60 VDC	65 ADC or pulse[1]	3500 W	Engineering samples
TCP3500-1024G	180 – 528 Vrms, 50/60 Hz	24 V	Adjustable 5 – 30 VDC	145 ADC	3500 W	Consult factory

[1] PSU model with pulse load operation capability 0 – 100 kHz, 0 – 100% Duty, 0/Iout_max.

2. RACK SPECIFICATIONS

PARAMETER	DESCRIPTION / CONDITION	MIN	NOM	MAX	UNIT
Input Voltage	3-phase, 3 wires + PE		104 - 305 / 180 - 528		V
Input Frequency	Permitted variation	47		63	Hz
Input Current	per Line at 3 x 180 V (line to line)			56	Arms
Output Voltage	Adjustable or fixed (see Model Selection table)				
Output Power Rating	High Line and Low Line		14		kW
Output Current	Fixed or Adjustable (see PSU models above)				
Efficiency	Typical, High Line at load above 40%		94		%

3. SAFETY, REGULATORY AND EMC SPECIFICATIONS OF TCP3500

PARAMETER	DESCRIPTION / CONDITION		SPECIFICATION
Radiated Emission	EN55011		Class A
Conducted Emissions	EN55011		Class A
Electrostatic Discharge	IEC 61000-4-2	Level 4: ±8 kV contact, ±15 kV air	Criterion B
Radiated Electromagnetic Field	IEC 61000-4-3	10 V/m	Criterion B
Electrical Fast Transient (EFT)/Burst	IEC 61000-4-4	Level 3: ±2/1 kV	Criterion B
Surge Immunity		Level 3: ±1 kV DM, ±2 kV CM	Criterion B

4. MONITORING AND CONTROL

4.1 GUI (GRAPHIC USER INTERFACE) AND RS485 COMMUNICATION PROTOCOL

Bel Power Solutions provides a Windows® XP/Vista/Win7 compatible SW User Interface allowing the programming and monitoring of the TCP3500 power supplies. The SW Utility can be downloaded from: belpowersolutions.com.

For detailed information please see Communication Manual (BCA.00129) or contact Bel Power Solutions sales representative.

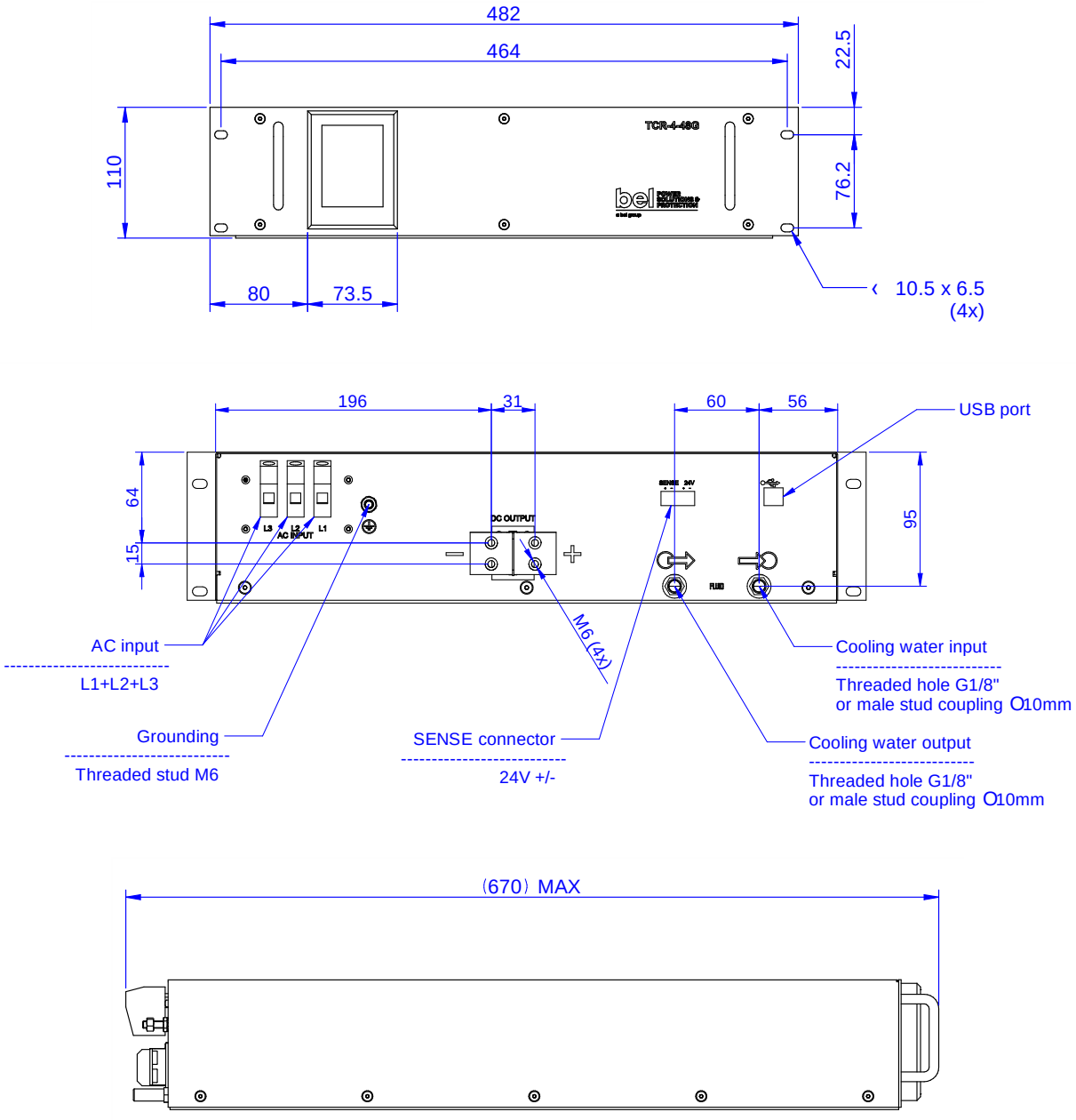


Figure 2. SW GUI application screen shot – Data logger menu

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5. MECHANICAL SPECIFICATIONS

PARAMETER	DESCRIPTION / CONDITION	MIN	NOM	MAX	UNIT
Dimensions (W x D x H)	See Figure 2		482 x 670 x 110		mm
Weight	With 4 PSUs installed		43		kg
Cooling	Liquid cooled (water cooled) base plate with water flow rate	2	4		l/min.



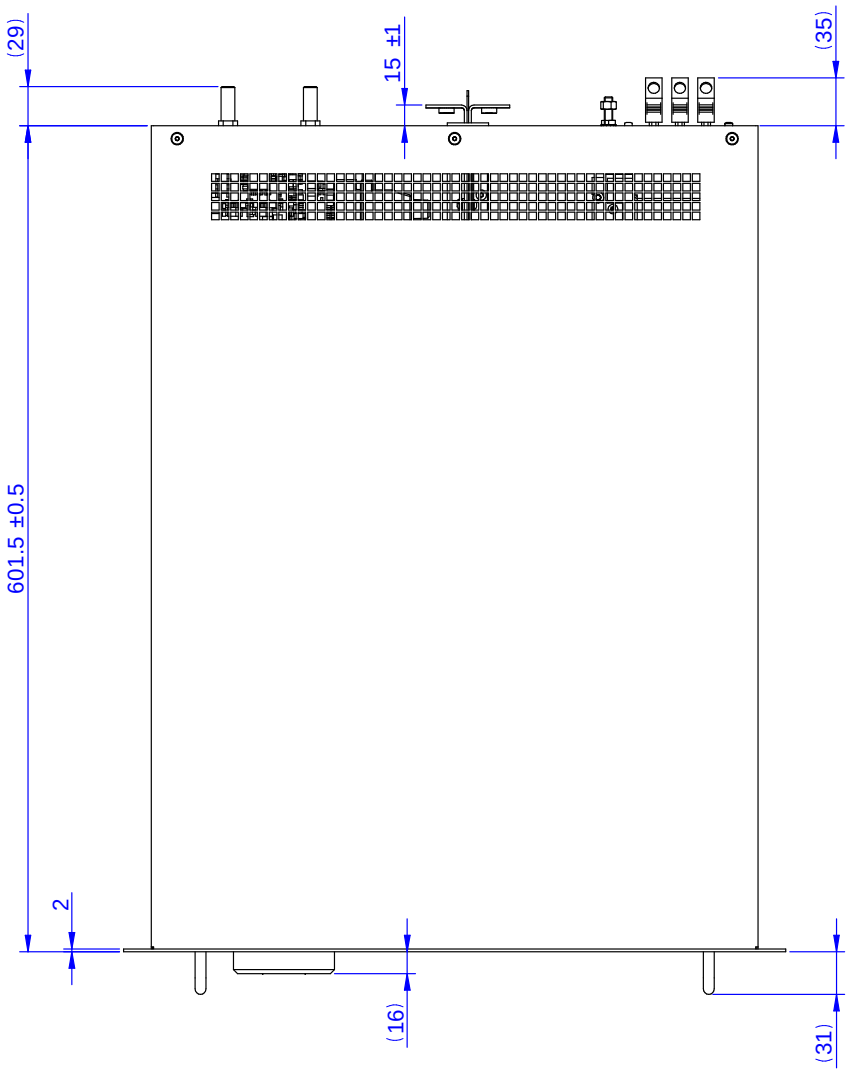


Figure 2. Mechanical Dimensions

For more information on these products consult: tech.support@psbel.com

NUCLEAR AND MEDICAL APPLICATIONS - Products are not designed or intended for use as critical components in life support systems, equipment used in hazardous environments, or nuclear control systems.
TECHNICAL REVISIONS - The appearance of products, including safety agency certifications pictured on labels, may change depending on the date manufactured. Specifications are subject to change without notice.

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