



120 Amp Silicon Passively Controlled Transformer-Rectifier Unit (PCTRU)

Model 28VS120Y-7

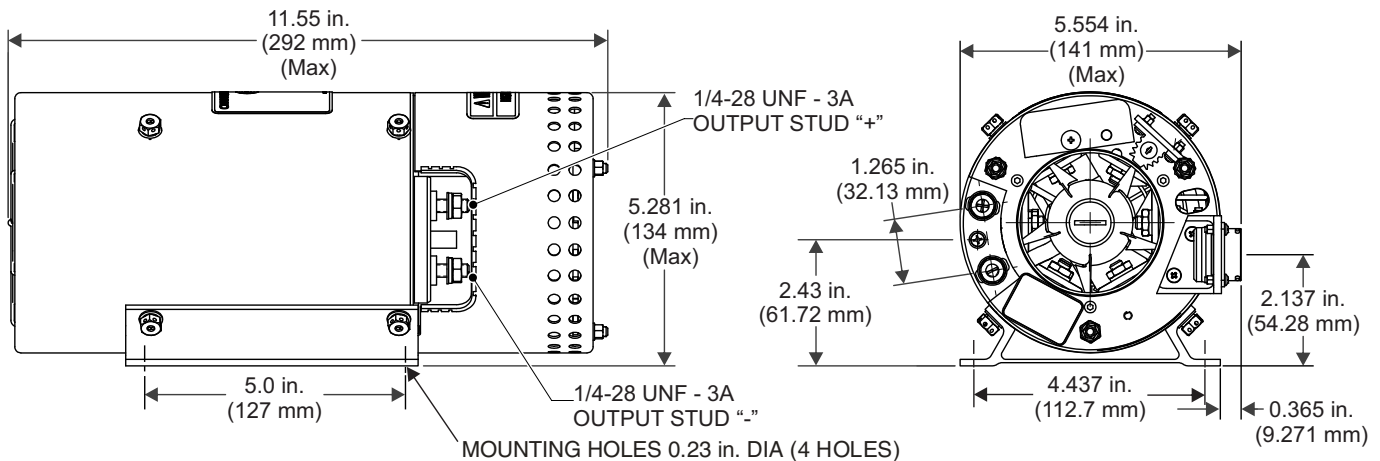
The Model 28VS120Y-7 passively controlled transformer-rectifier unit (PCTRU) is a lightweight, highly reliable, solid state, static AC to DC converter for airborne and ground applications. The unit operates from a 115/200 volts, 400 hertz, 3 phase AC source and provides 120 amperes of continuous current at 28 volts DC (nominal).

Champion's PCTRU provides higher power quality than a regulated TRU by delivering low ripple voltage, transient voltage surge suppression, high efficiency and the highest reliability without the added failures modes inherent to regulated TRUs.

Champion model 28VS120Y-7 clamps high voltage transients to 40 volts max as compared to regulated TRUs and traditional TRUs which can allow high voltage transient up to 70 volts. This higher quality power eliminates faults, increases operational time and performance, reduces operational cost, and increases safety. Champion's PCTRU exceeds power quality requirements of industry standards.

SPECIFICATIONS

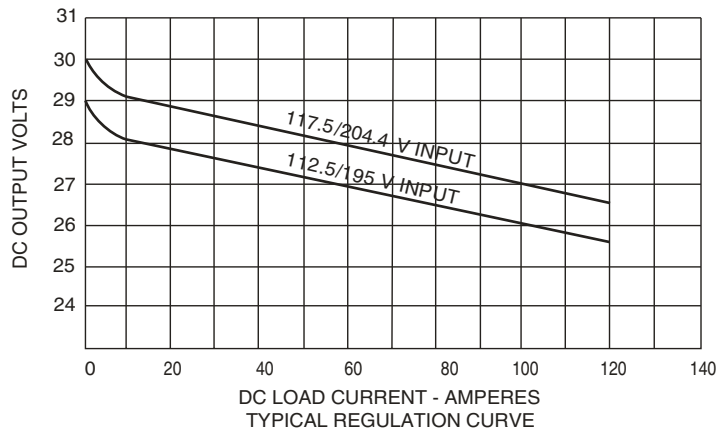
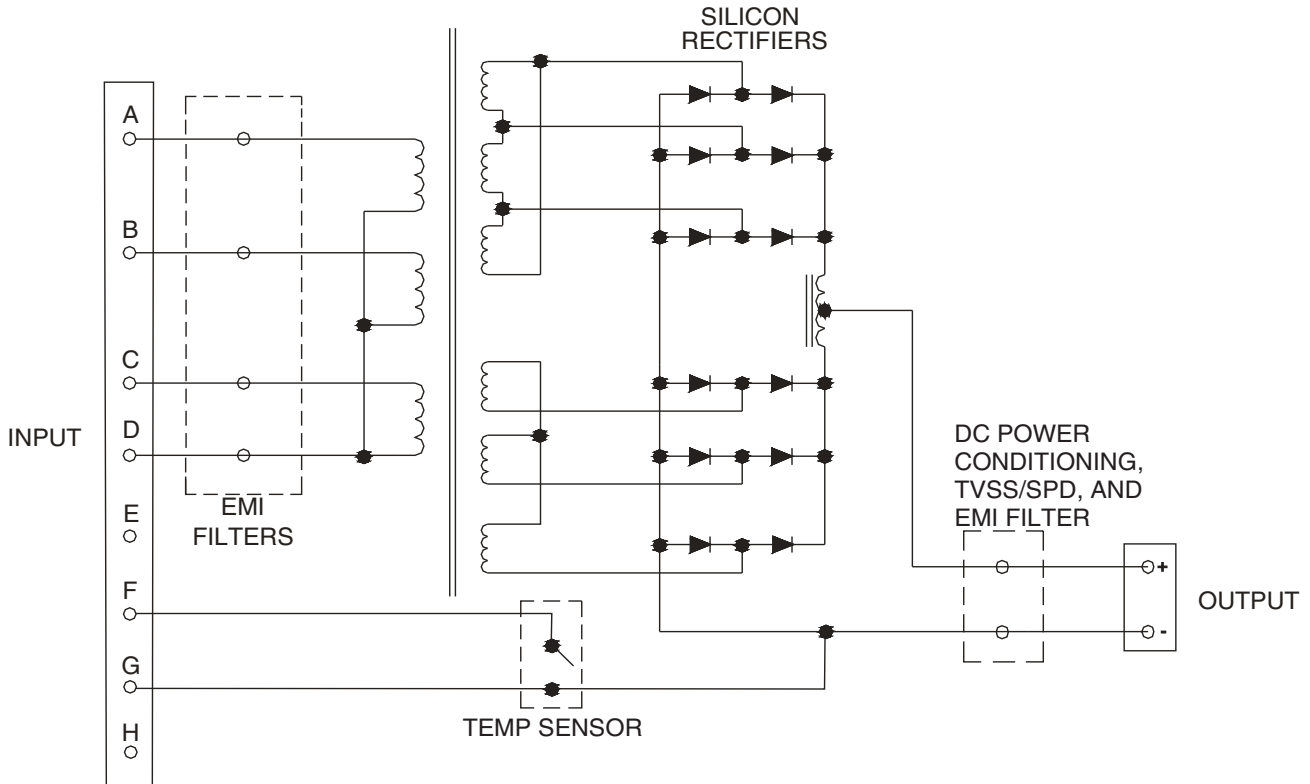
INPUT - AC VOLTAGE 115/200 Volts rms CURRENT, FULL LOAD 11 Amperes FREQUENCY 380 to 420 Hertz PHASE 3 Phase, 4 Wire	COOLING Fan ALTITUDE TEMP. RANGE Per Curve 1, MS35543 (ASG) WEIGHT 13.5 lb. (6.12 kg) DIMENSIONS (LxWxH) 11.6 x 5.6 x 5.3 in. (295 x 142 x 135 mm)
OUTPUT - DC VOLTAGE, NOMINAL 28 Volts CURRENT 120 Amperes RIPPLE (Half Load) 0.7 (Max) Volts Pk-Pk RIPPLE (Full Load) 0.9 (Max) Volts Pk-Pk OVERLOAD 1000 amps, 7 Seconds 400 amps, One Minute	MOUNTING POSITION Any TRANSFORMER Primary Wye Secondary Delta-Wye RECTIFIERS Silicon Diodes
EFFICIENCY 85%, Minimum POWER FACTOR 95% DUTY Continuous	ELECTRICAL CONNECTIONS Input MS27472E-16B-8P Receptacle Output 1/4-28 Terminal Studs Fault Detection Pin G Thermal



TECHNICAL NOTES

The Model 28VS120Y-7 is an exceptionally adaptable unit permitting flexibility in the choice of location of the mounting base in any of four quadrants around its circumference. Fan cooling allows the unit to be mounted in any position; input and output connection locations and mounting provisions may be varied to meet special requirements.

This unit features a unique Class H delta-wye transformer, which is electrically and magnetically symmetrical, and provides for a cooler, less noisy operation. The housing and circular heat sinks are constructed of extruded aluminum for exceptional rigidity. Special aircraft type silicon diodes manufactured for Champion Aerospace, LLC. assure operational dependability. Internal radio noise filtering meet all provisions of MIL-P-26600 and MIL-I-6181. This unit is designed to and meets all requirements of MIL-P-26517, MIL-C-7115, and MIL-STD-704A-F.



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