

**ICESP X – Australia 2006  
Paper 3A3**

**INDUSTRIAL DEMONSTRATIONS OF A THREE-PHASE T/R POWER  
SOURCE WITH COAL FIRED POWER PLANTS**

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**ABSTRACT**

This paper describes a new three-phase T/R power source together with its automatic voltage controller. Since May 2005, the power sources have been applied in two Chinese 125 MW coal fired power plants. Six months industrial demonstrations indicated that in contrast to conventional single phase T/R, the three-phase T/R can significantly increase the corona current. The voltage ripple is around 3-5% only. Meanwhile, its power factor is around 0.9. By using the new AVC, upto 60% of electricity consumption can be saved.