Excitation Panel

POWER SYSTEM PROTECTION EQUIPMENT



Suitable for synchronous generators and motors up to 300MW. Widely applied in hydropower, thermal power and industrial self-owned power stations. Adaptable to grid-connected and isolated operation conditions. Supports unattended and minimally manned operation.

KEY FEATURES

- Adopts standard embedded structure
- Three-phase fully-controlled bridge configuration
- Adaptive regulation mode
- Dual-bridge or multi-bridge design available for high power models
- Current sharing coefficient of multi-bridge exceeds 0.95
- Intuitive display mode, touch screen optional
- Powerful pulse driving capability
- Comprehensive self-check function

TECHNICAL DATA

Analog input channels	13 channels
Analog input resolution	2^16
Digital input	16 channels
Digital output	32 channels
Auto/manual adjustment range	10%~130% rated value
Excitation build-up	Overshoot <10% rated value, build-up time <2.5s, oscillation times <3
Reactive power droop	±15% software adjustment
Voltage regulation accuracy	≤±0.5%
Thyristor phase shift range	5°~165°
Thyristor firing angle resolution	1/4096
Supports manual and automatic synchronous grid connection	
Continuous operation permissible under 110% rated excitation current	
Terminal voltage variation ≤0.25% with 1% unit frequency fluctuation	
Excitation forcing current ≥1.8 times rated value for over 20s when terminal voltage drops to 80% rating	
Excitation system response time	Rise time <0.08s, fall time <0.15s

Voltage response ratio	≥2 per second
Automatic regulator precision	<0.2% rated voltage
Residual voltage excitation as default, activates at 2% rated residual voltage; separate automatic excitation without manual operation when residual voltage absent, excitation capacity 1kVA, no overshoot and oscillation	
Terminal voltage overshoot ≤10% rating, oscillation times ≤3, regulation time ≤5s after sudden full active and reactive load rejection	
Excitation PT broken line detection, automatic switching and alarm signal output	
Rotor overvoltage protection with alarm signal	
Cooling fan failure protection with alarm signal	
Rectifier bridge fault protection with alarm signal	
Under-excitation limiting function	
Ceiling excitation limiting and inverse time excitation forcing protection	
Remote and local control available	
Regulation accuracy better than 0.5% rated voltage	
Communication with host computer via RS-485 or Ethernet	
Switch signal interface supported	

ORDERING INFORMATION

MOQ	LEAD TIME	TRADE TERMS	PAYMENT	WARRANTY
1 unit	7-15 working days	EXW / FOB / CIF / DDU	T/T, L/C, WU, PayPal	12 months