

# ZG-dSVG

ZG-dSVG Dynamic Reactive Power  
Compensation Device Product manual

## Integrated Energy Technology & Service Provider







\$" "\$

\$

" "\$#( +

: 3B8

B5E

EH9

GBE

七



## L9ŽVEH9

L9ŽVEH9`a`a`YVdigeVé`SdWŽUSbSU[fk USbSU[fadeS`V [ VgUfadel Tgf dVŠ`feVé fZWUa`hVé[a`aXdVŠUf[hVWV VdYk fZdagYZ fZWZ [YZŽdVŽ  
cgW Uk ei [FUZ [ Y aXbai VdVWUfcb` [UVVh[UWé i Z [UZ ZSe fZW[ Ua\_ bScdT`WSVhS` fSYVé aXfcdSV[f[a` S`dVŠUf[hWbai VdUa\_ bW eSf[a` Vt:g[bŽ  
\_ W f [ fVd\_ eaXfWUZ` [US^ [ VVjVé egUZ Se Ua\_ bW eSf[a` W WUfi bai VdVW e[fk S` V abWdSf[a` W U[W Ukl S` V [f [e fZWT Véf ea`gf[a` XadfZW  
Ua\_ bdVZW e[hW\_ S` SYW\_ W f aXbai Vd cgS`f[k Sf bdVéW fi i Z [UZ US` W WUf[hVk [ \_ bdahWFZWfdS` e[W f efST [f[k aXfZWyqV ha`fSYW [ Z [T [f  
fZW [U] VdaXfZWTge ha`fSYW Ua\_ bW eSfWfZW[\_ TS`S` UWUgdW fi` fVdagf fZWZSd\_ a` [Uel S` V [ \_ bdahWFZWbai VdXSUfadž



3







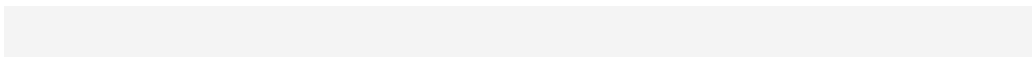
= D >  
5V ;94F

FZW\_ S[ U[dJg[f [ U'gVWē fZW[ ^W UST[ Wf fZWefSd[ Y UST[ W S` V fZWbai WdUST[ WzFZW[ ^W UST[ W [e Wēg[bbVW i [fZ [ea'Sf[a` ei [fUZ =f efSdžg b ei [fUZ! S` V bdWUZSdY[ Y UgdbW f ^\_ [f[ Y dWē[efadDf Ua` ` WUf[ Y dVfUfad>I S` V fZWbai WdUST[ W [e Wēg[bbVW i [fZ S UgdbW f Ua` hWdVdUZS[ žFZ[e[eSUZ[WVW Tk USēUSV[ Y [VW f[US^bai Wd g` [fel i Z[UZ Ua` fS[ fZW65 egbbad USbSU[fad5V S` V fZWUa\_ \_ gfSž fadU[dJg[f Ua\_ baeVW aX;94Fež

D ;94F

FZWbdWUZSdYUgdbW f ^\_ [f[ Y dWē[efadD W WUf[hWk ^\_ [fe fZWUgdbW f T VXdWfZVWVh[UWefSdFel bcfWUf[ Y fZW;94Fe S` V 65 egbbad USbSU[fadēžFZWdWē[efadZSe S YdWf fZWd\_ S^USbSU[fk S` V US` i [fZefS` V dVbVfW [ djeZ UgdbW fe XadSeZadfbW[aV aXf[\_ Wž

>



FZWUa` hWdVdUZS[ [eUa` ` WUfW fa fZWYd[V fZdēgYZ fZWUa` ` WUf[ Y dVfUfad>žFZ[e dVfUfadUa` hWdfe fZWagfbgf ha fSYWaxfZWUa` hWdVdUZS[ [ fa UgdbW f Xad[ WUf[a` [ fa fZWYd[Vl e\_ aafZ[ Y fZWd[bb^WYW WdSfW Tk fZWUa` hWdVdUZS[ žFZWdVfUfad[e VVē[Y` VW i [fZ Z[YZ cgS^fk \_ S^VēS` V ^ai \_ SY` W[UVW e[fk XWf g d[ Y Z[YZ ^ Vd[fk ^ai ^eeS` V ZSd\_ a` [UdWē[efS` UWž

FZW\_ S[ Ua` fca`WUa` e[efe aXhSd[age Xg` Uf[a` S^TaSdVe fa Ua\_ b`WW35 e[Y` S^SUcg[e[f[a` f ei [fUZ[ Y Ua` fca`BI ? bg`eWW[efdTgf[a` f efSfge VWWUf[a` S` V ekefW\_ bca`fWUf[a` z

FZWbai Wdg` [fVd[hWITaScV [e[ efS^W [ fZWbai Wdg` [fS` V [eUa`` WUfW fa fZW\_ S[ Ua` fca`WUa`[S abf[US^ TdWfa Ua` hWUf fZWUa` fca` e[Y` S`e[ fa Vd[hWe[Y` S`e`XdfZW;94FeS` V fa bcah[VWXXWTSU] a` fZWefSfge aXfZWbai Wdg` [fz

baa^

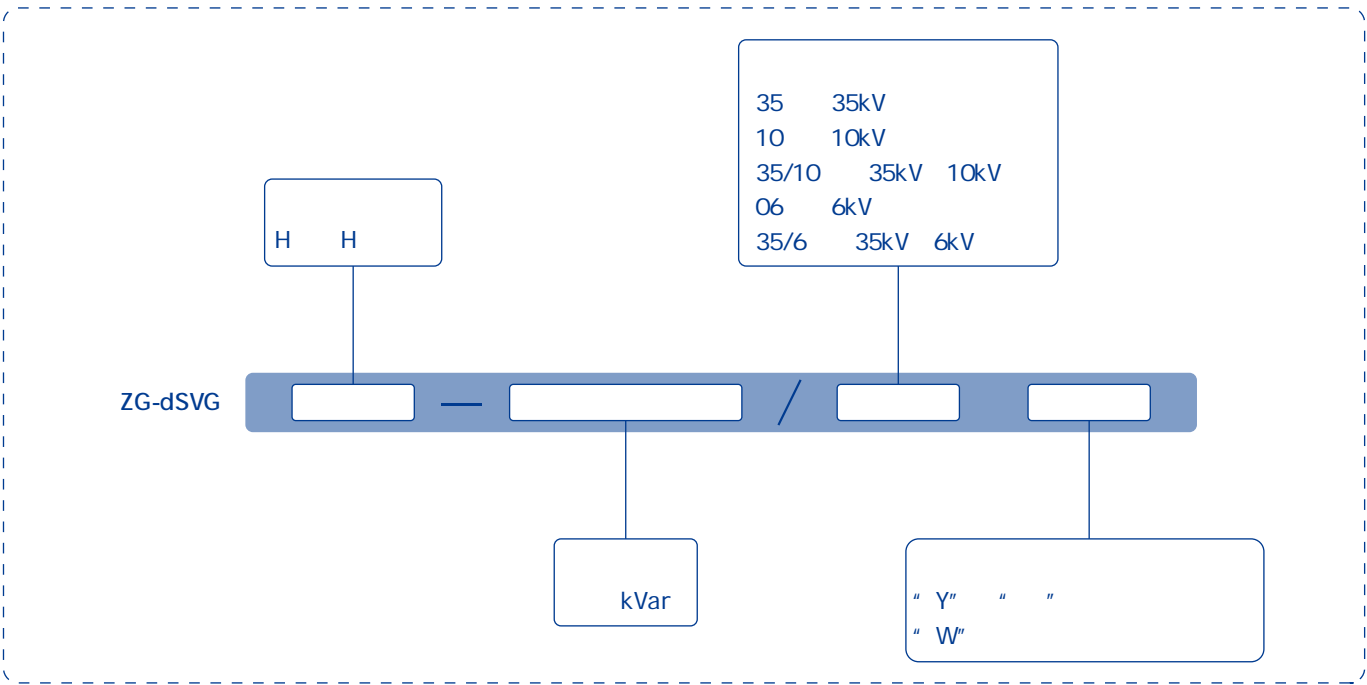
# Specifications and Technical Features

## 3.1 Model Description

FZWbdaVgUfe SdMUSfWad[eW Se Xa^ai e,

```
%o      K          f l
%o      %   % ]H   #"   #" ]H   % !#"   % ]H   #" ]H   "(   ( ]H   % !(   % ]H   ( ]H
%o      ] HSd
%o      :      :
```

```
%o efS^Sf[a` Xad_ ,`K` Xad[ Vaad[ efS^Sf[a` [ `a` W SdS` YW_ W fl `l` XadagfVaad[ efS^Sf[a` z
%da fSYWVWV; % _ V$` e% ] HeWdVei`#` _ V$` e#` ] HeWdVe-% !#` _ V$` e% ] HeWbZvai` `#` ] HeWdVe" ( _ V$` e( ] HeWdVe-% ! ( _ V$` e% ] H
efWbZvai` ` ( ] HeWdVez
%asfW USbSU[fk, g` [f ] HSd
%daVgUf efdgUfgdWad_ , : Xad: ZTdVYWUSEUSVW
```



```
#" ] H          f #" "" "" ] HSd      :
L9ZVEH9Z # "" "" !#" K
7j S_ b`W 3 ekefW_ i [fZ dSfW ha fSYWaX#" ] H dSfW Ua_ bW eSf[a` USbSU[fk aXf #"" "" ] HSd : ZTdVYWUSEUSVWfaba`aYkI S` V `a` W
fkBWSdS` YW_ W f Xad[ Vaad[ efS^Sf[a` fZ W_ aVW` g_ TWdUS` TWYjbdWVeW SeL9ZVEH9Z # "" "" !#" Kz
```



L9Ž/EH9

++

. \$.

5SeUSVW L9Ž/EH9 SVabfe 'ai Ž'aeexg^kŽla` fda^Ww bai VdVWh[UWd Ua\_ T[ W i [fZ ebWU[S^Ua` fda^S^YadfZ\_ efa W egdWbWdAd\_ S` UW S` V 'ai 'aeel S` V fZVW U[W Uk aXfZVWVh[UW]e ++. -f US` W WUf[hVWk [ Z[T[f Z[YZŽdWg Uk ZSd\_ a` [U[ WUf[a` f S` V fZWagfbgf UgddW f V[efadf[a` dSfW[e. \$. i ZW Ua\_ bW eSf[ Y dWUf[hWbai WdG` VVdfZWUa` V[f[a` aXeg U[W f USbSU[fk[ f S^ea ZSe fZWg` Uf[a` eaXegbbdWēŽ [ Y 'ai ZSd\_ a` [Ue S` V Ua\_ bW eSf[ Y g` TS` S` UWž

L9Ž/EH9

L9Ž/EH9 S[dUaa^W Uaa [ Y ekefW\_ SVabfe [ fVd\_ W[SfWS[dVgUf VVdY` i [fZ bSfW fW fWUZ` a^aYk S` V fZWUST[ W fab X` SVabfe 'a` YŽ[XW\_ S[ fW S` UWdWVYfVd S^dafad\_ afadS` V UW fdXgYS^XS` i [fZ 'ai Ž` a[eVWVdY` f i Z[UZ W egdWē fZWeSXWk S` V dM[ST[ f[k aXfZV ahWdS^ekefW\_ ž

L9Ž/EH9

I [fZ : S^VWUf[a` S` V g` [f eWZVef Xg` Uf[a` [ efS` VTkl S` V eWZVef S` V bda fWUf[a` Xg` Uf[a` [ ha fSYW UgddW f S` V fW\_ bWdSfgdW SXVdfZWekefW\_ [e dg` [ Yf Xsg^fe US` TWWVWUfW [ f[\_ WS` V [ea fSfW Sgfa\_ Sf[US^k fa W egdWfZSf fZWekefW\_ i [M` af S` WUf fZWbai Vd YdV S` V fZWdG[b\_ W f Sf fZW^aSV e[VWž ; SVV[f[a` f L9Ž/EH9 bdaVgUfe i [fZ Tk bSee Xg` Uf[a` US` \_ S[ fS[ efST WabWdSf[a` Vgd[ Y Xsg^f [ea fSf[a` ž

L9Ž/EH9

L9Ž/EH9 ZSe Ua` efS` f ha fSYWUa\_ bW eSf[a` \_ aVW[ SVV[f[a` fa fZWUa` hW f[a` S^Ua` efS` f bai Vd XSUfad Ua\_ bW eSf[a` S` V Ua` efS` f dWUf[hWbai Vd Ua\_ bW eSf[a` Xg` Uf[a` el S` V Z[YZ S` V 'ai ha fSYWfdShWdē Y Xg` Uf[a` efa UabWi [fZ ` W W VdYk bai VdYW WdZ f[a` -: [YZ Žna fSYWeWZUZWU] [ Y S` V eWZVefSd[ Y Xg` Uf[a` fa UabWi [fZ VYfdV\_ Wk g` efST Wbai Vd YdV- BaeeWē Y \_ g^f[b^WbSd^W^abWdSf[a` fWUZ` a^aYk fa UabWi [fZ fZWe[fWaXegbWdZSdrWUSbSU[fk Se i W^Se \_ g^f[b^WTgeTScē S` V \_ g^f[b^WkefW\_ el S` V aTfS[ [ Y fZWbSfW fW fWUZ` a^aYkZ/Abf[a` S^Xg` Uf[a` efi

## 4.1

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]

[Redacted]





\*

NO.	项目名称 project name	容量 capacity kVar	电压 volotage kV	套数 set	应用场景 application scenario
9	35kV Shaanxi Coal Tongchuan Mining (Bureau) Co., Ltd. Huajing Hougou Wind Shaft Substation 35kV Substation	5000	10	1	Coal
10	35kV SVG Shaanxi Coal Hancheng Xipeng 35kV Substation SVG Project	SVG 2000 FC 2000	6	2	Coal
11	EPC EPC general contracting project of Phase II of surface production system of Hongshazhuan open-pit coal mine of Xinjiang Company	1200	10	4	Coal
12	110kV Ruoqiang Zhicun Washixia Mining Co., Ltd. ore dressing plant 110kV substation project	15000	10	1	Mining
13	EPC EPC General Contracting Project for Raw Coal Transportation System Rehabilitation Project of East Open Pit Mine	3000	10	2	open-pit coal mine
14	Zijin High and Low Voltage Distribution System Compensation and Energy Saving Technology Reform Project	2000	10	2	Mining production
15	10kV SVG Yunnan Tin Industry Co., Ltd. tin branch 10kV SVG project	1500	10	2	Tin production
	35kV Fugu County Honghua Coal Mine Co., Ltd. 35kV substation new construction	3000	10	2	Coal
	10kV SVG Yushen Coal Yushuan Coal Mine 10kV high-voltage SVG reactive power compensation device	3000	10	2	Coal
	SVG SVG Project of Ground Power Station of Ping Coal Five Mines	4000	6	1	Coal
		35000	35	2	
	4.8 Inner Mongolia Dongli Photovoltaic Annual Output of 48,000 tonnes of Silicon Material Project	23000	35	2	semiconductor manufacturing
		12000	10	2	Silicon production
	20GW Annual output of 20GW monocrystalline silicon rod production line project of Kunming Dongchuan Yuzhe Semiconductor Co.	8000	10	8	
	Zhejiang Wangrong Semiconductor annual output of 240,000 o o	TF		2-3	semiconductor manufacturing
					semiconductor manufacturing





LZ[YgS` Yie eWZVWhWabVW % ] H V[dWfZS` Y[ Y f \*? HSdZ[YZZha fSYWVv` S\_ [U dV\$UF[hWbai VdUa\_ bW eSf[a` VWh[UWS` V )? HSd 85  
[ VgUf[hWdV\$UF[hWbai VdUa\_ bW eSf[a` VWh[UW VdWAd\_ S^k bgf[ fa abW\$Sf[a` Sf fZW [ V Xsd\_ aX: gSV[S` 9dgbZ ZWLa` efdjUf[a` eUS^W  
aXfZ[ei [ V Xsd\_ [e&+Z` ? I fi [fZ %i [ V fgd[ V aX#` "" ] I USbSU[fkI S` V fZW [ V Xsd\_ [e Sf S` S^f[fgVWaX% "" \_ WdV\$STahWeV\$ VhWz

LZ[YgS` Yie eWZVWhWabVW % ] H V[dWfZ` ag` fW &? HSdi SFWZaa VW Z[YZZha fSYWVv` S\_ [U dV\$UF[hWbai VdUa\_ bW eSf[a` VWh[UW  
9 i Se fa abW\$Sf[a` Sf: gS` W Y 9dgbie #""? I i [ V Xsd\_ zI [ V bai VdYW W\$Sf[a` bda VVfe SdMS WJFW TK fZW V\$FZVd  
Z `SdY [ ha fSYWVdab S\_ b ffgVWS` V `ai bai Vd XUfaZ FZWbda WUf [ efS^W L9ZVEH9 i SFWZaa VW dV\$UF[hWbai Vd  
bW e fZW% ] H Tge e[VWSUadV[ Y fa fZWSUfgS^e[fgSf[a` aXfZWe[fWfa egbbdV\$e ha fSYW gUfgSf[a` S` V [ bda hWfZW  
e bai V

E[j eWfeax% ] HV[dWfZ\_ ag` fW \$&? HSdi SfWZJaa^W EH9ei [fZ\_ g`f[b^WbScS^WabWfSf[a` VVWabW Tk LZ[YgS` Yi WdMa U[S^k bgf  
[ fa abWfSf[a` Sf S @[ Yj [S BHbai WdefSf[a` fZWS\$"] HbZafaha fS[U TaaefWdefSf[a` [e[ efS^Ww i [fZ fi a %"? H3\_ S[ fdS` eXd\_ Wde S` V  
fi a % ] H TgeTSdbz 3UadV[ Y fa fZWe[fgSf[a` aX^Sd^WYd[VZLa` ` WfW USbSU[fk S` V fi a eWf[a` e aXTgeVd fZdWwefW eXi SfWZJaa^W  
VK` S\_ [UdWfUf[hWbai WdLa\_ bW eSf[a` VWh[UWd SdV[ efS^Ww a` fZWe[VWaXVfUZ eWf[a` aX% ] H TgeVd S` V Sf fZWeS\_ Wf\_ W fZWUW fdW

LZ[YgS` Yie eWZVWabW #"] HV[dWfZS` Y[ Y f (? HSdEH9 S` V (? HSd85 fWd[ Y VWh[UW SeXd\_ S^k bgf [ fa abWfSf[a` Sf: WfW  
;da` S` V EfWw: af Da^f Y ? [^fZWe[fWZSe^Sd^W^aSV eZaU] el^Sd^W^ha^fSYWw[bel^ai bai WdXUfad S` V \_ S` k ZSd\_ a` [Ue VjUWwW[ Y fZW  
efS` VSd/zfZW85 la\_ bW eSfWdXd\_ S` k ZSd\_ a` [Ue [ fZWTgeL S` V fZWEH9 la\_ bW eSfWdXdYd[V dWfUf[hWbai WdS` V USbSU[f[hWdWfUf[hW  
bai WdVgd[ Y ZSd\_ a` [U la\_ bW eSf[a` f W Wf[hWk egbbdWde[ Y ha^fSYW gUfgSf[a` e TdagYZf STagf Tk fZWefWwZaf da^f Y bcdUWde S` V  
efST[fe[ Y fZWbai WdXUfada` fZWTgee[VWz



## Huainan Mining Industry Dynamic Reactive Power Compensation Project

#"] Hf )? HSd EH9 %? HSd 85  
85 EH9

LZ[YgS` Y [ VWbW VW f`k VVhWabWV #"] Hf )? HSdEH9 S` V %? HSd85 fVd[ Y VVh[UM Sebgf [ fa abWsf[a` [ : gS[ S` ? [ [ Y ; VgeZ fdkZ We[fWZSe `Sd`W`aSV eZaU]el `Sd`W`ha fSYWV[bel `ai bai Vd XSUfad S` V \_ S` k ZSd\_ a` [U VjUWWS` UWez 85 Ua\_ bW eSfV` Xad\_ S` k ZSd\_ a` [Ue Sf fZWTgeTSd S` V EH9 Ua\_ bW eSfV` XadYd[V dVdUF[hWbai VdSei W`Se USbsUf[hWdVdUF[hWbai VdVgd[ Y ZSd\_ a` [U Ua\_ bW eSf f[a` f W WUf[hWk egbbdVee[ Y ha fSYW gUfgSf[a` eS` V efST[te[ Y fZWbai VdXSUfadSf fZWTgeTSde[VVz



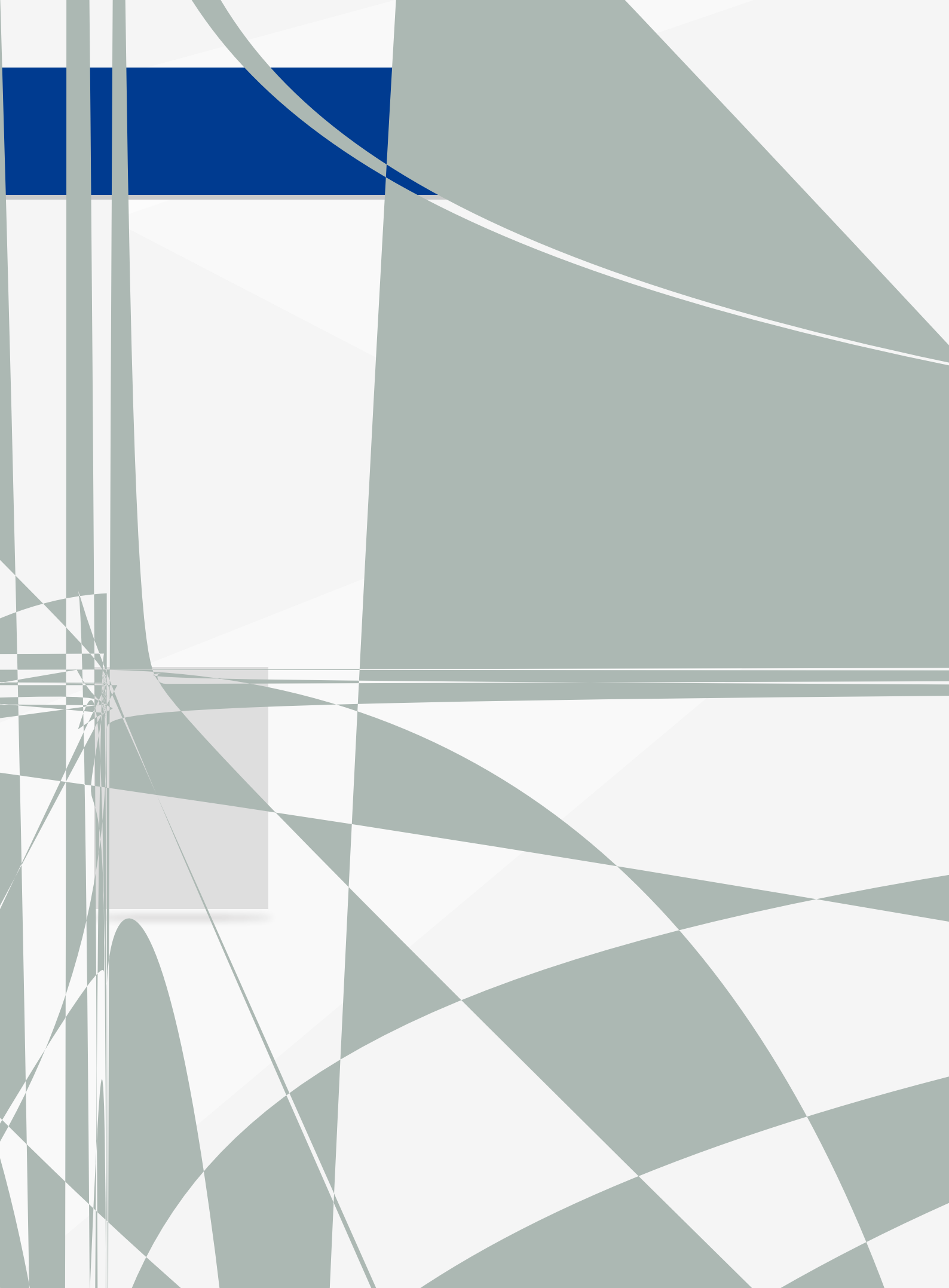
## 35kV

## Shanxi Iron & Steel 35KV Substation Dynamic Reactive Power Compensation Project

% ]H \$ #"? hSd #"]H

FZW` W Ua` efdgUf[a` aX% ] H egTefSf[a` aXEZS` j [ EfVW` SVabfe fi a eWfe aX#"? hSd#"] H Vk` S\_ [U dVdUF[hWbai Vd Ua\_ bW eSf[a` VVh[UWezFZWe[fW`ha fSYW gUfgSf[a` [e `Sd`W`ZSd\_ a` [Uba`gfa` [eWd]agef fZdWVbZSeW\_ TS`S` UMS` V afZVdbdT`V\_ e`VSV fa fZWahVdS`^ bai Vd XSUfad[e `ai zFZVdVadW fZVWk` S\_ [U dVdUF[hWbai Vd Ua\_ bW eSf[a` VVh[UWV WUf[hWk dWgUWe ha fSYW gUfgSf[a` f efST[teV` Tge ha fSYW [ bchV`bai VdXSUfadS` V dWgUWe dVdUF[hWbai Vd`aeez







002169

Guangzhou Zhiguang Electric Technology Co., Ltd.

Add

51

NO.51 Punan Road,Yunpu Industry Zone, Huangpu District Guangzhou,P.R.China.  
Tel 020-32113398  
Fax 020-32113456  
Web [www.gzzg.com.cn](http://www.gzzg.com.cn)  
Zip 510760