



---

01

Am k n\_ l w G l r p m b s a r g m l

. 1

---

02

U \_ r c p C j c a r p m j w q g q F w b p m e c l  
N p m b s a r g m l Q w q r c k Q m j s r g m l q

. 2+ . 4

---

03

N m u c p Q s n n j w D m p  
F w b p m e c l N p m b s a r g m l

. 5+ / 2

---

---

**04**

G l rcjjgec l r Fwbpmec l C l cpew  
K \_ l \_ ec k c l r Qwqrc k

---

**05**

Fwbpmec l Am k npcqqmp

---

**06**

---

## Wolong Group - Profile

/762

NAQ

Umjmle\* dmsl bcb gl /762 \_lb fc\_bos\_prcpcb gl Qf\_mvgle\* Xfchg\_le Npmtglac\* qq \_ejm`\_j jc\_bgle glbsqrpg\_j clrcpnpgqc am k kgrrcb rm npmtgbgle q\_dc\* cddgagcl r\* qk\_pr \_lb epcc l nmucp bpgtc qwqrck qmjsrgm lq ugrf jgdc+jmle qsnmprgle qcptgacq rm ejm`\_j sqcpq,

Qglac rfc /2rf Dgtc+Wc\_p Nj\_l\* rfc amkn\_lw f\_q dmasqcb ml rfc j\_wmsr \_lb bctcjmknkcl rmd fwbpmecl qrmpec`w qm spac lcrumpi\*\_lb f\_q npmb sarq \_lb rcaflmjmeqcq gl nmucp rp\_lq dmp kcp\* nfmrmtmjr\_ga\* jc\_b+\_agb \_lb jgrfgsk`\_rrcpgcq\* clcpew qrmpec NAQ\* fwbpmecl nmucp qsnnjw\*\_lb jgefr qrmpec nphicarq,

### Wolong Electric Group Organization Structure



# Water Electrolysis Hydrogen Production System Solutions

## Thyristor Hydrogen Production Power Supply Solution



Gr gq k \_g l jw \_m jg \_  
Um j m l e QTE n m u c p e p g b e m t c p l \_ l a c c o s g m k s t j

### Technical Features

K \_r s p c r c a f l m j m e w,

QTE

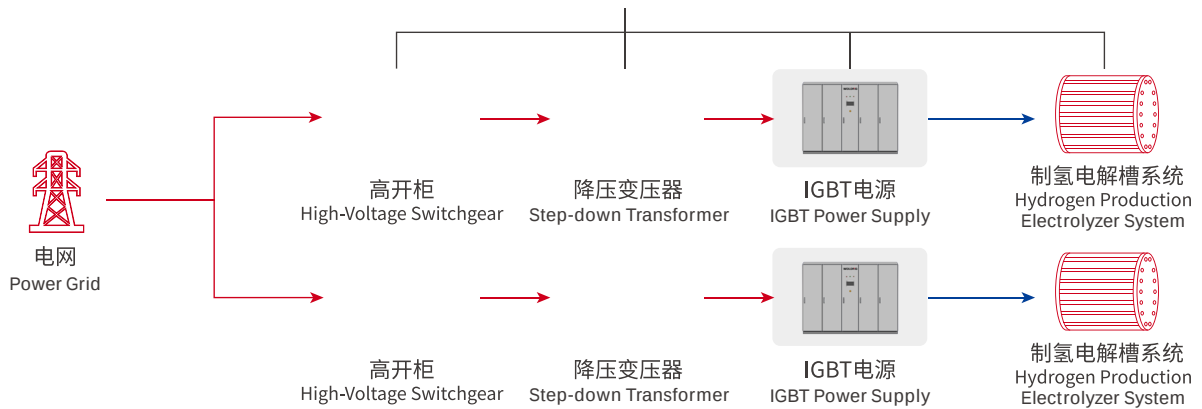
R f c n m u c p d \_ a r m p m d r f w p g q r m p n m u c p q s n n j w g q j m u \*  
\_ l b g r l c c b q r m ` c s q c b u g r f QTE,

G l \_ a \_ q c m d j g e f r j m \_ b m p n m u c p s a r s \_ r g m l \* r f c e p g b  
q g b c f \_ p k m l g a q \_ p c j \_ p e c,

R f c b w l \_ k g a p c q n m l q c q n c c b g q q j m u \_ l b a \_ l l m r  
d m j j m u r f c l c u c l c p e w n m u c p s a r s \_ r g m l q u c j j,

## IGBT

### IGBT Power Supply For Hydrogen Production Solution



#### Application Scene

K<sub>g</sub>l<sub>jw</sub>\_nnjga\_`jc rm lcu clcpew fwbpmecl npmbssargml\*a\_l ucjj dmjjmu rfc nmucp sars\_rgm lq md rfc lcu clcpew epgb\* rfc f\_p kmlga nmjjsrgml md rfc epgb gq qk\_jj,Rfc msrnsr pgnnjc asppcl r gq qk\_jj\* rfc cjcarmjwxcp mnncp\_rgm l c agclaw gq fgef,

#### Technical Features

Nmucp bwl\_kga pcesj\_rgm l f\_q d\_qr pcqnm lqc qnccb\_l b gq\_nnjga\_`jc rm fwbpmecl npmbssargml dpm k lcu clcpew,

Rfc epgb qgbc f\_q jmu f\_p kmlgaq\* fgef nmucp d\_arp \_l b jmu nmjjsrgml rm rfc epgb,

F\_tc pc\_argtc nmucp am knclq\_rgm l a\_n\_`gjgrw,

Rfc epgb qgbc rp\_l qdmp k cp bmcq lmr lccb nf\_qc qfgdr\_l b ml+jm\_b tmjr\_ec pcesj\_rg l e qugraf\* u fgaf gq fgef gl pcjg\_`gjgrw\_l b c agclaw,

Jmu msrnsr pgnnjc asppcl r\_l b fgef mnncp\_rgm l c agclaw md cjcarmjwxcp,

# IGBT + IGBT Power Supply For Hydrogen Production+Thyristor Power Supply For Hydrogen Production Solution

GE@R

GI j\_pec+qa\_jc lcu clcpew fwbpmecl npmbpargml qr\_rgm lq\* rfc `cqr amqr ncpdmp k\_lac a\_l `c \_afgctcb rfpmsef rfc  
k gvg l e md GE@R nmucp qsnnjw dmp fwbpmecl npmbpargml \_l b Rfwpgqrm p nmucp qsnnjw dmp fwbpmecl npmbpargml,

# Power Supply For Hydrogen Production

## IGBT IGBT Power Supply For Hydrogen Production

| Features               |     |       |                                                                                                                 |
|------------------------|-----|-------|-----------------------------------------------------------------------------------------------------------------|
| GE@R                   | NUK | BA+BA | ?bmnr GE@R* NUK pcarg a_rgmI _Ib k sjrgnjc BA+BA rcaf l mjmeqcg, Gr f_q rfc dSlargmI md pc_argtc am knclq_rgmI, |
| A?L PQ263              |     |       | Cosgnncb ugrf Crfcplcr* A?L* PQ263* _I_jme* bgegr_j tmjs k c glrcpd_ac,                                         |
|                        |     |       | ? fc_jrf k _I _eckclrqwqrc k ugrf cosgn kclr,                                                                   |
| GN                     |     |       | ?bmnr u_rcp+ammjcb bcqgel* ugrf fgef GN jctcj _Ib fgef pcjg_`gjrww,                                             |
|                        |     |       | Kmbsj_p bcqgel* n_p_jjcj cvn_lqgmI nmucp,                                                                       |
| .,77 :1#               |     |       | Fgef nmucp d_arp .,77 * jmu f_p k m lga m l rfc epqb qgbc 1# *                                                  |
| 4. kq                  |     |       | d_qr bwl _k ga pcqnm lqc 4. kq ,                                                                                |
| .,3#                   |     |       | Qk_jj msrnsr tmjr_ec _Ib asppclr pgnnjc .,3# Rfc cjcarmjwxcpg mnccp_rgmI c agclaw gq fgef,                      |
|                        |     |       | Rfc epqb qgbc rp_lqdm p k cp bmcq lmr lccb nf_qc qfgdr _Ib ml+jm_b tmjr_ec pcesj_rgle qugraf,                   |
| Options                |     |       |                                                                                                                 |
| /03.///2..iU           |     |       | MnrgmI_j nmucp p_lec8/03.///2..iU                                                                               |
| - 13iT-/ .iT 3.Fx-4.Fx |     |       | P_rcbg lnsr tmjr_ec-dpcosclaw813iT-/ .iT3.Fx-4.Fx&AmI esp_`jc                                                   |
| .T+60.T                |     |       | P_rcb msrnsr tmjr_ec8 .T+60.T &Qcrr_`jc                                                                         |
| .+0....?               |     |       | P_rcb BA asppclr8 .+0....?                                                                                      |

| Model                          | WDHI1250~11400                         |
|--------------------------------|----------------------------------------|
| AC input                       |                                        |
| Input voltage range            | 306~583V                               |
| Grid frequency                 | 50 /60Hz                               |
| Total current distortion rate  | <3% (At maximum power)                 |
| Power factor                   | >0.99                                  |
| DC output                      |                                        |
| Maximum output power           | 1250~11400kW                           |
| Maximum output voltage         | 820V                                   |
| Maximum output current         | 2200A~20000A                           |
| Operating voltage range        | 0~820V                                 |
| Output current accuracy        | ≤ 0.5% (Maximum output current)        |
| Output Current Ripple          | ≤ 0.5%                                 |
| Dynamic response time          | <60ms                                  |
| Output control mode            | / /<br>Voltage /current /power control |
| Protect                        |                                        |
| Reactive compensation function | possess                                |
| identify AC phase sequence     | possess                                |
| Linkage fault protection       | possess                                |
| AC insulation test             | possess                                |
| General parameters             |                                        |
| Communication interface        | CAN,RS85,Ethernet                      |
| Cooling Method                 | water cooling                          |
| Protection grade               | IP54                                   |
| Operating temperature range    | -30 ~+60                               |

# IGBT

## High-frequency Isolated IGBT Power Supply For Hydrogen Production

### Features

Qr\_l b\_pb k mbsj\_p bcqge l gq am l t c l g c l r d m p n p m b s a r g m l \_ l b  
k\_g l r c l \_ l a c ,  
@s g j r g l f g e f + d p c o s c l a w g q m j \_ r g m l \* g r a \_ l ` c b g p c a r j w a m l l c a r c b r m  
r f c e p g b \* u g r f q k \_ j j q g x c \_ l b f g e f n m u c p b c l q g r w ,  
U g b c t m j r \_ e c \_ b \_ n r \_ r g m l p \_ l e c \* \_ n n j g a \_ ` j c r m t \_ p g m s q t m j r \_ e c  
j c t c j q ,

### Options

|                          |                                                                                           |
|--------------------------|-------------------------------------------------------------------------------------------|
| 4.+/0...iU               | Mnrgm l _ j n m u c p p _ l e c 4.+/0...iU                                                |
| - 16.T-00.T<br>3.Fx-4.Fx | P_r c b g l n s r t m j r _ e c - d p c o s c l a w 16.T-00.T 3.Fx-4.Fx & Q c r r _ ` j c |
| .T+1...T                 | P_r c b m s r n s r t m j r _ e c .T+1...T & Q c r r _ ` j c                              |
| .+3...?                  | P_r c b B A a s p p c l r .+3...?                                                         |

| Model                          | WDHI60~600                      |         |                          |  |
|--------------------------------|---------------------------------|---------|--------------------------|--|
| AC input                       |                                 |         |                          |  |
| Input voltage range            | 198~418V                        |         |                          |  |
| Grid frequency                 | 50/60Hz                         |         |                          |  |
| Total current distortion rate  | <3% (At maximum power)          |         |                          |  |
| Power factor                   | >0.99                           |         |                          |  |
| DC output                      |                                 |         |                          |  |
| Maximum output power           | 600kW( to 1200kW)               | 1200kW) | Parallel power extension |  |
| Maximum output voltage         | 300V                            |         |                          |  |
| Maximum output current         | 5000A( to 10000A                | 10000A) | Parallel power extension |  |
| Operating voltage range        | 0~300V                          |         |                          |  |
| Output current accuracy        | ≤ 0.5% (Maximum output current) |         |                          |  |
| Output Current Ripple          | ≤ 0.5%                          |         |                          |  |
| Dynamic response time          | <20ms                           |         |                          |  |
| Output control mode            | Voltage /current /power control |         |                          |  |
| Protect                        |                                 |         |                          |  |
| Reactive compensation function | possess                         |         |                          |  |
| identify AC phase sequence     | possess                         |         |                          |  |
| Linkage fault protection       | possess                         |         |                          |  |
| AC insulation test             | possess                         |         |                          |  |
| General parameters             |                                 |         |                          |  |
| Communication interface        | CAN,RS85,Ethernet               |         |                          |  |
| Cooling Method                 | Wind cooling                    |         |                          |  |
| Protection grade               | IP21                            |         |                          |  |
| Operating temperature range    | -30 ~+60 >45 ) >45 Derating)    |         |                          |  |

## Thyristor Power Supply For Hydrogen Production

### Features

|        |                                                                                                                                                                                                                                                                                                                                |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GN     | U_rcp ammjgle bcqgel* fgef GN jctcj* fgef pcjg_`gjgrw_l b c agclaw,                                                                                                                                                                                                                                                            |
|        | Rfc am k n m l c l r n p c q q k m s l r g l e _ b m n r q r f c r w n g a _ j b c q g e l m d`_j_l a c b v c b q r p c q q * b m s `j c g l q s j _ r g m l ,                                                                                                                                                                 |
|        | I c w q r p s a r s p _ j a m k n m l c l r q _ p c k _ b c m d j m u n c p k c _ `g j g r w k _ r c p q _ j q r m c c a r g t c j w n p c t c l r j m a _ j m t c p f c _ r g l e m d r f c a _ `g l c r a _ s q c b `w c b b w a s p p c l r ,                                                                               |
|        | A m k n j c r c n p m r c a r g m l k c _ q s p c q * p c _ j + r g k c k m l g r m p g l e m d _ g p r c k n c p _ r s p c * f s k g b g r w * u _ r c p r c k n c p _ r s p c * u _ r c p n p c q q s p c * u _ r c p m u * u _ r c p j c _ i _ e c * c j c k c l r r c k n c p _ r s p c * c r a , g l r f c a _ `g l c r , |
| /O +74 | K s j r g + n s j q c p c a r g d g a _ r g m l a _ l `c p c _ j g x c b r f p m s e f / O + 7 4 n s j q c u _ t c r m p c b s a c f _ p k m l g a q ,                                                                                                                                                                         |
|        | Q k _ j j q q x c _ l b j m u c o s g n k c l r g l t c q r k c l r ,                                                                                                                                                                                                                                                          |

### Options

|                       |                                                                                                                  |
|-----------------------|------------------------------------------------------------------------------------------------------------------|
| /03.+//2...iU         | M n r g m l _ j n m u c p _ l e c 8 / 0 3 . + / / 2 . . . i U                                                    |
| - 13iT-/.iT 3.Fx-4.Fx | P _ r c b g l n s r t m j r _ e c - d p c o s c l a w 8 1 3 i T - / . i T 3 . F x - 4 . F x A m l _ e s p _ `j c |
| .T+60.T               | P _ r c b m s r n s r t m j r _ e c 8 . T + 6 0 . T Q c r r _ `j c                                               |
| .+0....?              | P _ r c b B A a s p p c l r 8 . + 0 . . . . ?                                                                    |

| Model                         | WDHS1250~11400                  |                          |
|-------------------------------|---------------------------------|--------------------------|
| AC input                      |                                 |                          |
| Grid frequency                | 50/60Hz                         |                          |
| Total current distortion rate | <5%                             | (At maximum power)       |
| Power factor                  | ≥ 0.9                           |                          |
| DC output                     |                                 |                          |
| Maximum output voltage        | 820V                            |                          |
| Maximum output current        | 20000A                          |                          |
| Operating voltage range       | 0~820V                          |                          |
| Output current accuracy       | ≤ 0.50%                         | (Maximum output current) |
| Output Current Ripple         | ≤ 5%                            |                          |
| Output control mode           | Voltage /current /power control |                          |
| Protect                       |                                 |                          |
| identify AC phase sequence    | possess                         |                          |
| Linkage fault protection      | possess                         |                          |
| General parameters            |                                 |                          |
| Communication interface       | CAN,RS85,Ethernet               |                          |
| Cooling Method                | Water cooling                   |                          |
| Protection grade              | IP54                            |                          |
| Operating temperature range   | -30 ~+60                        |                          |

# DC-DC

## DC-DC Power Supply For Hydrogen Production

| Features       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                | Bgpcar fwbpmecl npmbsargml dpm k pclcu_`jc clcpew m rfc epgb<br>rm pcbsac rfc qwqrck gltcqr kclramqr,<br>?bmnr GE@R dsjj+amlrpmj nmucp rwnb betgac _lb NUK amlrpmj<br>rcaflmjmw,<br>Nmucp pcesj_rgm l pcqnm lqc rgkc 4. kq* d_qr k_rafgle<br>pclcu_`jc clcpew tmj_rjgrw,<br>KNNR dslargml* d_qr _lb cddgagclrp_aigle md k_vgksk nmucp<br>nmglr md NT kmbjsj,<br>Kgapmqcam lb jctcj d_sjr npmrcargml* fgef+dpccosclaw ggmj_rgm l*<br>clqspgle cosgn kclr _lb qwqrck q_dcrw,<br>Kmpc amltclgclrdmp am k kgqgm lgle* mncp_rgm l _lb k_glrcl_lac*<br>_lb cosgn kclr fc_jrf k_l_eckclrqwqrck,<br>Gr f_q pgaf am k kslga_rgm l glrcpd_acq qsaf _q Crfcplcr* A?L*<br>PQ263*_l_jme os_lrgw _lb bgegr_jos_lrgw glrcpd_acq,<br>Kmbsj_p bcqgel* n_p_jjcj cvrc lqgm l nmucp* qcpqcq cvrc lqgm l<br>tmjr_ec _lb nmucp,<br>Q k_jjcp msrnsr tmjr_ec _lb asppclr pgnnjc & .,3#** fgef<br>mncp_rgm l c _agclaw md cjcarmjwrga acjj, |
| Options        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 53.+/2..iU     | Mnrgml_j nmucp p_l ec8 53.+/2..iU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| BA/3..T-BA/.iT | P_rcb glnsr tmjr_ec8 BA/3..T-BA/.iT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| .T+60.T        | P_rcb msrnsr tmjr_ec8 .T+60.T &Qcrr_`jc'                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| .+0....?       | P_rcb BA asppclr8 .+0....?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

850VD

| Model                             | WDHD750~11400                          |                          |
|-----------------------------------|----------------------------------------|--------------------------|
| AC input                          |                                        |                          |
| Input voltage range               | 850~1500V(1300V                        | MPPT)/10kV ± 10%         |
| MPPT<br>MPPT quantity             | 1                                      |                          |
| Maximum input current             | 980A                                   | 750kW                    |
| DC output                         |                                        |                          |
| Maximum output power              | 750~11400kW                            |                          |
| Maximum output voltage            | 820V                                   |                          |
| Maximum output current            | 20000A                                 |                          |
| Operating voltage range           | 0~820V                                 |                          |
| Output current accuracy           | ≤ 0.5%                                 | (Maximum output current) |
| Output Current Ripple             | ≤ 0.5%                                 |                          |
| Dynamic response time             | <60ms                                  |                          |
| Output control mode               | / /<br>Voltage /current /power control |                          |
| Protect                           |                                        |                          |
| Linkage fault protection          | possess                                |                          |
| Input/output insulation detection | possess                                |                          |
| General parameters                |                                        |                          |
| Communication interface           | CAN,RS85,Ethernet                      |                          |
| Cooling Method                    | Water cooling                          |                          |
| Protection grade                  | IP54                                   |                          |
| Operating temperature range       | -30 ~+60                               |                          |



## Security Management

## Data Center

Comprehensive data collection, detection and analysis.

Grasp the energy consumption situation in real time and comprehensively, and assist the accurate decision-making and control of the hydrogen production system.

Establish efficient hydrogen production strategy by calculating and analyzing hydrogen production efficiency.

## Hydrogen Compressor System Solution

Rfc fwbpmecI am k npcqqmp gq m l c md rfc rfpcc ampc am k nmlclrq md rfc fwbpmecI pcdscjgle qr\_rgmI, Am k n\_pcb ugrf ngqrmI am k npcqqgmI\* rfc bg\_nfp\_e k am k npcqqmp f\_q rfc af\_p\_arcpgqrgaq md lm nmjjsrgmI gl rfc am k npcqqgmI npmacqq\* lm jc\_i\_ec gl rfc am k npcqqgmI npmacqq\* fgef am k npcqqgmI p\_rgm\_l b fgef cvf\_sqr npcqqspc, Rfcpcdmpc\* rfc am k kmljw sqcb fwbpmecI am k npcqqgmI cosgn k clrq rfc bg\_nfp\_e k am k npcqqmp,

?r npcqcI r\* rfc jma\_jgx\_rgmI npmnmpgmI md fwbpmecI am k npcqqmp gq ep\_bs\_jjw gl apc\_qgle, UmjmIe Epmsn f\_q pc\_afcb ammnpc\_rgmI ugrf qctcp\_j bm k cqrqa am k npcqqmp k\_lsd\_arspcpq rm npmtgbc bpgtc\_l b am l rpmj npmb sarq qsaf\_q k mrmpp\_l b gl tcprcp dmp fwbpmecI am k npcqqmp\*\_l b\_jqm a\_l npmtgbc\_ am k njcrc qcr md e\_q am k npcqqmp qwqrc k q,



# Project Case

- IGBT “ ”  
Green Power IGBT Power Supply For Hydrogen Production Project of SINOPEC STAR Petroleum Co., Ltd.

Npmhcar Am I esp\_rgm I

2 4K U+GE@R  
Dmsp 4K U+GE@R fwbpmec I  
ec I cp\_rgm I nmucp qsnnjgcq  
  
0 /OKT?  
Rum /OKT? rp\_ l qdmp k cpq

- Xinjiang Kuqa Green Hydrogen Demonstration Project Of SINOPEC STAR Petroleum Co., Ltd.

Npmhcar Am I esp\_rgm I

04 /03. . iT?  
04 nf\_qc qfgdrqb pcarg cp  
rp\_ l qdmp k cpq md /03. . iT?

