

GUIDE



1.		1
2.		3
2.8.1 PGD2		
3.		13
4.		17
5.		25
6.		28
7.		56

8. 65

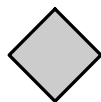
9. 67

1.

1.1



(1) 请勿在通由状态下按下控制器的外置启动按钮，否则会导致设备损坏。



(1) 控制器禁止在通电状态下进行维护。

1.2

(1)

PLC DP

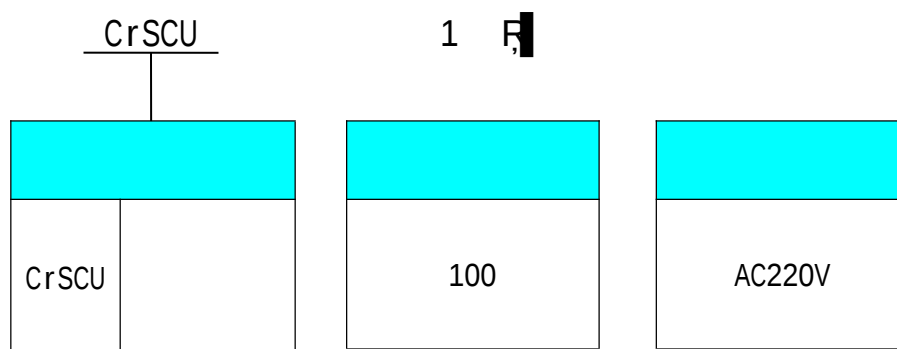
1.3

2.

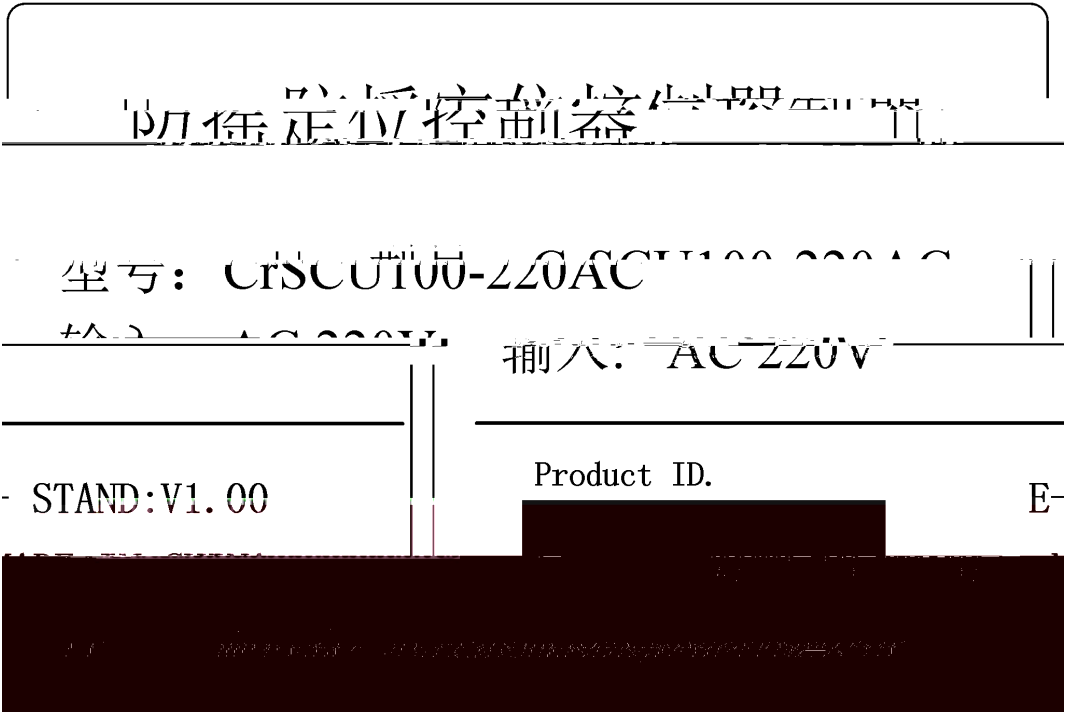
2.1

- 1.
- 2.
- 3.

2.2



2



2

CrSCU
100
220AC 220V

2.3

AC220V
DP
IP20

2.7 :

GDHF-K6C1	GDHF-K6C1 LCD
GDHF-PN02	PROFINET TCP/IP IT GDHF-PN02 PROFINET
GDHF-PGD2 PG	GDHF-PGD2 PG 15V
GDHF-DP03	GDHF-DP03 Profibus

2.8

2.8.1

2

! 3

2.8.2

GDHF-DP03 J14 GDHF-DP03

- GDHF-DP03
- GDHF-DP03
- DP
- DP

EMC

GDHF-DP03

DP

2.8.3

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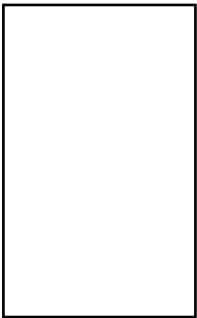
◦

2.8.4 PROFIBUS

DP

B1	B
A1	A
PE	PROFIBUS
B2	B
A2	A
PE	PROFIBUS

A B



2.9

2.9.1 PGD2

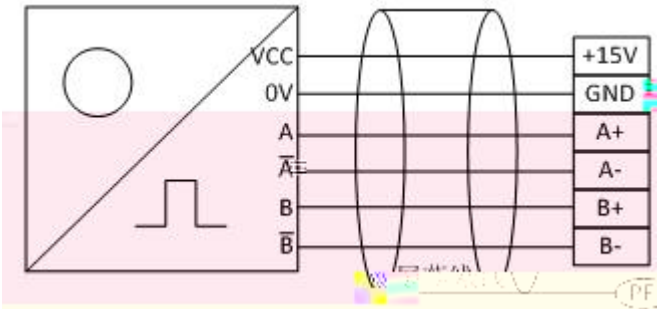
GDHF-PGD2	PG	10
	B-	

2
3

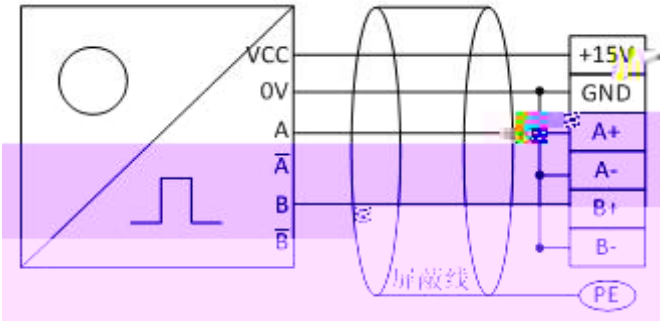
PG
PE

PGD2

1
a

		
		HLE45-1024L-6F.AC
		RH190N-ONAK1R61N-1024
		EC120P45-H6PR-1024

b



•

Pin	PCB Label	Function	Signal	Level	Current	Notes
1	1	+10V	10V			
2	2	GND				
3	3	AI1+/AV1	1	0/4	20mA	
			1	-10	10V	
4	4	AI1-	1			
5	5	AI2+/AV2	2	0/4	20mA	
			2	-10	10V	
6	6	AI2-	2			
7	7	A01	1	0/4	20mA	J1
			I a	0	10V	J1 V b p
8	8	A02	2			

3

~~SECRET~~

 $\nexists \forall \in \cup$

JOA

OV

3.2

|

|

|

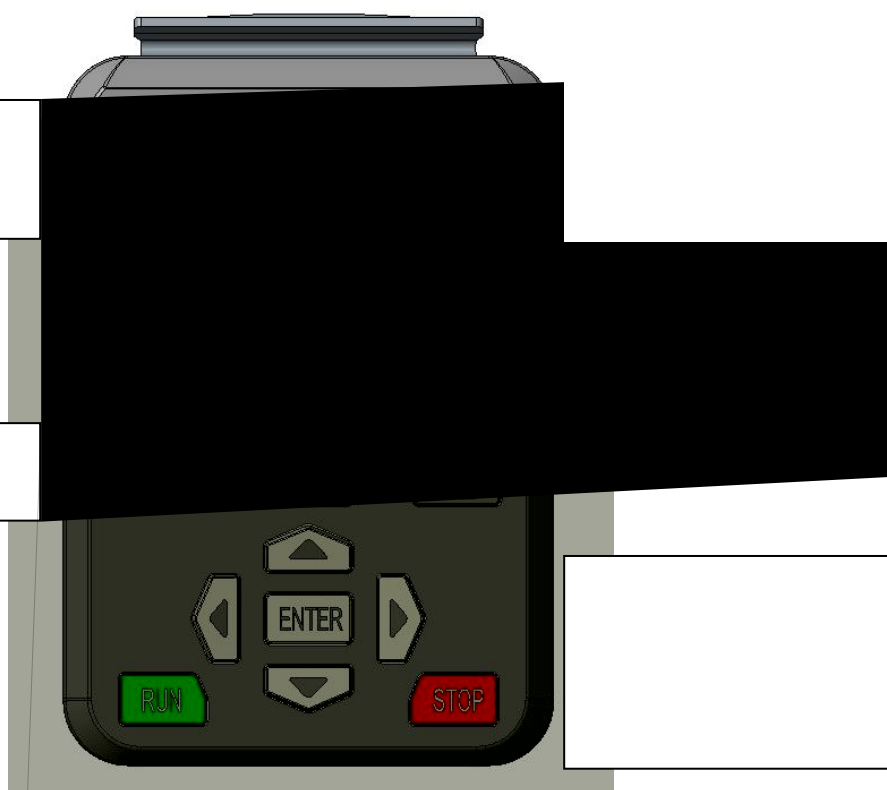
STOP

/RESET

ENTER

F1

LOCAL/REMOTE



ENTER

RUN STOP
LOCAL/REMOTE /

4.3



	FWD REV
	:HZ
	A
I	N N W E

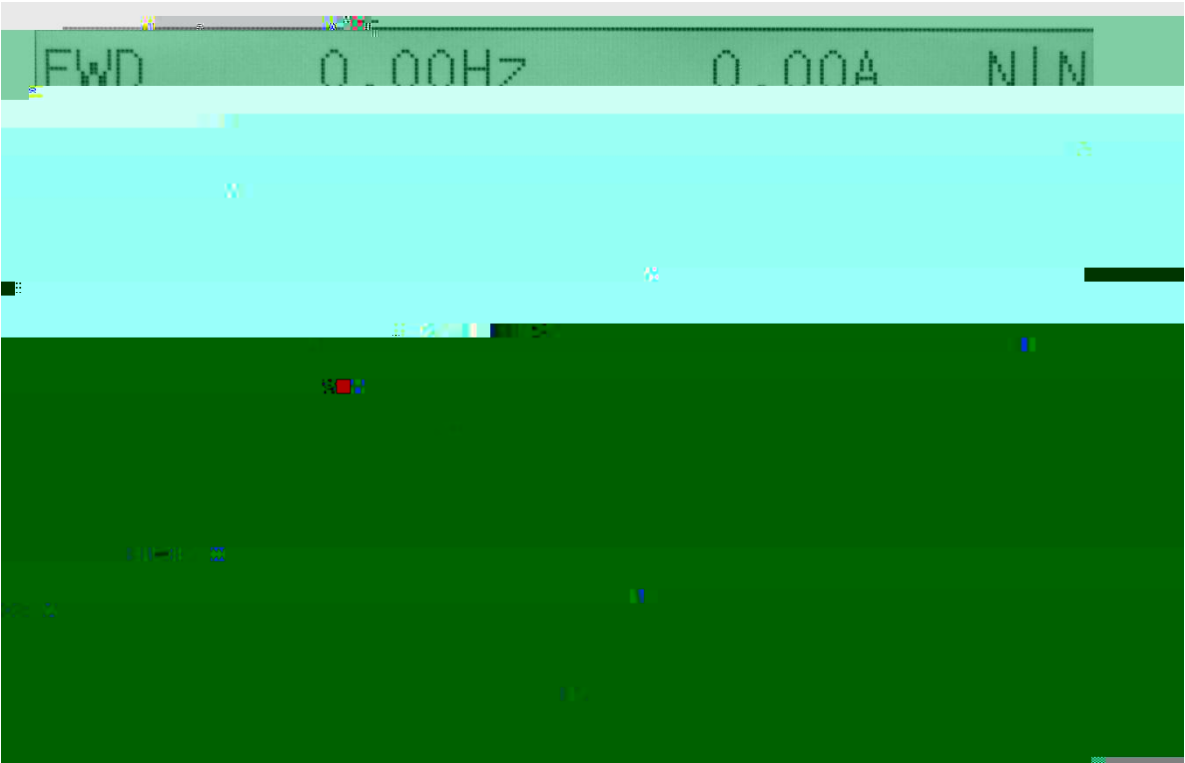
5	Reset Error	
6	Monitor Setting	
7	Firmware Version	
8	Menu Language	



1 Parameter Setting

2 Function

4.4



4

1 Reference Set

Reference Set	Speed	[Hz]	Hz
		[%]	%
	Torque	[%]	%
	Torque limiter	[%]	%
	1	[%]	1
	2	[%]	2

2 Change Direction

3 Current Error

-
- 4 Current Warning
 - 5 Reset Error
 - 6 Monitor Setting
 - 7 Firmware Version

11	Compare Parameter	
----	-------------------	--

1

2

5

4



“Enter”

3 Fault Record

4 Access Permissions

5 Display Set n

5.

5.1

1

2

V/F

5.2

5.2.1

1

AC220V

50Hz

2

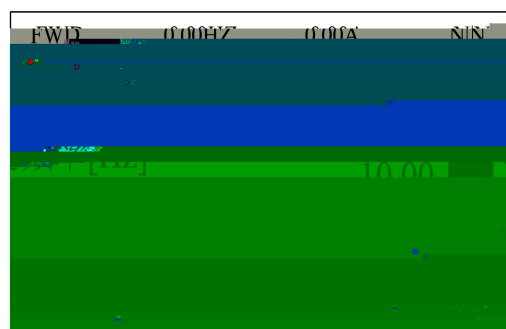
3

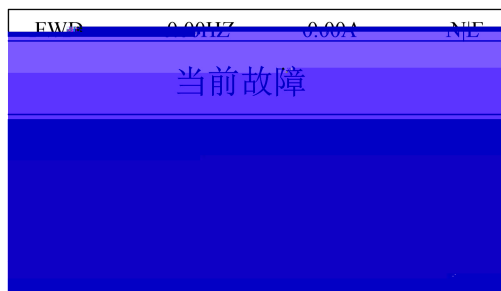
PG

PG

5

5.2.2





5.2.3

5.4 “ ”

5.2.4

P1.1		485V	-500
P7.14			1000
P7.15			1000
P7.59			0

5.2.5

1 DP

P33.0	Profibus	/ Profibus	1
P33.1		PLC	
P33.21	[W4]	PLC	1 0
P33.22	[W4]		0 1
P33.23	[W5]	PLC	2 1
P33.24	[W5]		0 1
P33.53	[W4]		1 0

P33.54	[W4]		0 1
P33.55	[W5]		19
P33.56	[W5]		2 100
P33.57	[W6]		2 1
P33.58	[W6]		0 1

2

P6.0	A0 1		1
P6.2	A0 1	A01	-100.0
P6.3	A0 1	A01	100.0

5.2.6

23

24

25 FUNC 25

26

27 FUNC 27

GUI 102

11					
12					
13					
14					
15					
16		FUNC 16			
17		0		1	
18		1		2	
19		2		3	
20		3		4	
21	31	FUNC 21	FUNC 31		
32				AFE	
33	48	FUNC 33	FUNC 48		
49		PROFIBUS	1	PROFIBUS	1 1
50		PROFIBUS	2	PROFIBUS	2 1
51		PROFIBUS	3	PROFIBUS	3 1
52		PROFIBUS	4	PROFIBUS	4 1
53		PROFIBUS	5	PROFIBUS	5 1
54	56	FUNC 54	FUNC 56		



6.5

P5

P5.0	AI1	[0]			
		[1]0 +10V	0	3	1
		[2]-10 +10V			
		[3]0 20mA			
AI1					
P5.1	AI1		0.0	1000.0	25.0
			[ms]		[ms]
P5.2	AI1	AI1	-10.00	10.00	0.000
			[V]		[V]
P5.3	AI1	AI1	-20.00	20.00	0.000
			[mA]		[mA]
P5.4	AI1	AI1	-10.00	10.00	0.000
			[V]		[V]
P5.5	AI1	AI1	0.00	20.00	0.000
			[mA]		[mA]
P5.6	AI1	AI1	-300.0	300.0	0.0
			[%]		[%]
P5.7	AI1	AI1	-10.00	10.00	10.000
			[V]		[V]
P5.8	AI1	AI1	0.00	20.00	20.000
			[mA]		[mA]
P5.9	AI1	AI1	-300.0	300.0	100.0
			[%]		[%]
P5.18	AI2	[0]			
		[1]0 +10V	0	3	3
		[2]-10 +10V			
		[3]0 20mA			

T0000

P6.7 A01 A01 (000 0000 0.0
512) [%]

A01
P6.8 A01 0.0 000.0 0.0 10.0
[ms] [ms]

P6.14 A02 7-1 0 14 4

P6.16 A02

4		
5		
6		
7		
8	(%)	()
9		
10		
11	(%)	(150)
12	DP	Profibus
13		P6.7 P6.21
14		

6.7 P7

P7.14			60.0 100.0 []	87.5 []
P7.15			50.0 100.0 []	80.0 []
P7.19	[1]	1	100.0 720.0 [%]	120.0 [%]
P7.20	[2]	2	100.0 720.0 [%]	120.0 [%]
P7.21	[3]	3	100.0 720.0 [%]	120.0 [%]
P7.22	[4]	4	100.0 720.0 [%]	120.0 [%]
P7.59		[0] [1]	0 1	1
P7.60			0.10 3.00 [s]	0.30 [s]

6.8	1	P8		
		[0]		
		[1]		
P8.0		[2]DP	0 4	0
		[3]MODBUS		
		[4]		
P8.3				

P8.23	5			0.0	300.0	300.0
					[%]	[%]
P8.24	5	P8.21	P8.23	0.0	300.0	10.00
					[s]	[s]
P8.25	6			0.0	300.0	300.0
					[%]	[%]

P8.42 5

P12.26			0.00 2.00 [s]	0.00 [s]
P12.27			0.00 2.00 [s]	0.00 [s]
P12.28			0.00 2.00 [s]	0.07 [s]
P12.29			0.00 2.00 [s]	0.07 [s]
P12.32			0.0 20.0 [%]	0.0 [%]
P12.33			0.0 20.0 [%]	0.0 [%]
P12.34			0.00 2.00 [s]	0.00 [s]
P12.35			0.00 2.00 [s]	0.00 [s]
P12.36			0.00 2.00 [s]	0.50 [s]
P12.37			0.00 2.00 [s]	0.50 [s]

6.10 1 V/F P16

P16.0			320 460 [V]	380 [V]
P16.2			0.0 4000.0 [kW]	[kW]
P16.3			320 460 [V]	380 [V]
P16.4			0.0 6500.0 [A]	[A]
P16.5			0.0 300.0 [Hz]	50.0 [Hz]
P16.6			0 6000 [rpm]	1465 [rpm]
P16.7			2 12 [pole]	4 [pole]
P16.9			0 7200 [rpm]	1500 [rpm]

		[0] V/F		
		[1]		
P16.11		[2]	0 4	0
		[3]		
		[4]		
P16.12			1.00 10.00	3.00
			[kHz]	[kHz]
		[0] V/F		
P16.14 V/F		[1] V/F		
		[2] 0		

P16.64	V/F	V/F	0.0 1000.0 [%]	100.0 [%]
P16.66		V/F	0.0 1000.0 [%]	100.0 [%]
P16.67			0.0 1000.0 [%]	100.0 [%]
P16.68			0.0 1000.0 [%]	100.0 [%]
P16.69			0.0 1000.0 [%]	100.0 [%]
P16.70			0.0 1000.0 [%]	100.0 [%]

6.11 Position Control P29

P29.0	Pos Ctrl Type	[0] No Pos Control [1] DI Pos Control [2] PB Pos Control [3] MB Pos Control	0 3	0
P29.1	Pos Ctrl Gain		0.0 5000.0	100.0
P29.2	Transation Speed		0.00 200.00 [m(rad)/min]	1.00 [m(rad)/min]
P29.3	Pulses perMM/MRad	/	0.00 650.00	30.00
P29.4	Pos Reach Bandwidth		0.00 100.00 [mm(mrad)]	10.00 [mm(mrad)]
P29.5	Pos Reach Time		0.0 20.0 [s]	0.5 [s]
P29.7	Crane Part Select	[0] Hoist [1] Slew [2] Luff	0 2	0
P29.8	OutPosCorct_Enable	[0] Disable [1] Enable	0 1	0
P29.10	OutPosCorct_Type	[0] IO [1] Data	0 1	0
P29.16	Base Point 1		0.0 65535 [mm(mrad)]	0 [mm(mrad)]

P29.18	Target Point 1		0.0 65535 [mm(mrad)]	1000 [mm(mrad)]
P29.37	POS Feedback Mode	[0] Normal FCK [1] AI FCK [2] Integral FCK	0 2	0

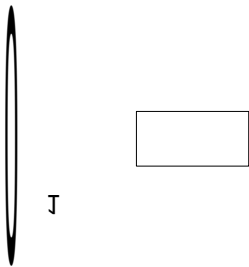
6.12 DP
P33

P33.0	Profibus	[0]	0 1	0
		[1]		
P33.1		PLC	1 255	1
		[0]PPO 1		
P33.2		[1]PPO 2	0 3	2
		[2]PPO 5		
		[3]GUIDE		
P33.3			0 16	14
P33.4		[0	0 16	14
354		[0] 0		
P33.5 "		[1] L]	0 3	0
5052		[2]		
		[3]		

4
5

5000 b
Q

[
[0



J

[

TO
9 13

Q

		[0] × 1		
		[1] × 10		
P33.30	[W8]	[2] × 100	0 4	1
		[3] × 1000		
		[4] × 10000		
P33.31	[W9]	7-2	0 37 J	0
		[0] × 1		
		[1] × 10		
P33.32	[W9]	[2] × 100	0 4	0
		[3] × 1000		
		[4] × 10000		
P33.33	[W10]	^x 7-2	0 37	0
		[0] × 1		
		[1] × 10		
P33.34	[W10]	[2] × 100	0 4	0
		[3] × 1000		
		[4] × 10000		
P33.35	[W11]	7-2	0 37	0
		[0] × 1		
		[1] × 10		
P33.36	[W11]	[2] × 100	0 4	0
		[3] × 1000		
		[4] × 10000		
P33.37	[W12]	7-2	0 37	0
		[0] × 1		
		[1] × 10		
P33.38	[W12]	[2] × 100	0 4	0
		[3] × 1000		
		[4] × 10000		
P33.39	[W13]	7-2	0 37	0
		[0] × 1		
		[1] × 10		
P33.40	[W13]	[2] × 100	0 4	0
		[3] × 1000		
		[4] × 10000		
P33.41	[W14]	7-2	0 37	0

P33.42

P33.43	[W15]	7-2	0 37	0
		[0] × 1		
		[1] × 10		
P33.44	[W15]	[2] × 100	0 4	0
		[3] × 1000		
		[4] × 10000		
P33.45	[W0]	7-3	0 48	0
		[0] × 1		
		[1] × 10		
		[2] × 100		
P33.46	[W0]	[3] × 1000	0 7	0
		[4] × 10000		
		[5] [%] × 1		
		[6] [%] × 10		
		[7] [%] × 100		
P33.47	[W1]	7-3	0 48	0
		[0] × 1		
		[1] × 10	8	
		[2] × 100		
P33.48	[W1]	[3] × 1000	0 7	0
		[4] × 10000		
		[5] [%] × 1		
		[6] [%] × 10		
		[7] [%] × 100		
P33.49	[W2]	7-3	0 48	0
		[0] × 1		
		[1] × 10		
		[2] × 100		
P33.50	[W2]	[3] × 1000	0 7	0
		[4] × 10000		
		[5] [%] × 1		
		[6] [%] × 10		
		[7] [%] × 100		
P33.51	[W3]	7-3		

P33.53	[W4]	7-3	0 48	1	
P33.54	[W4]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%] × 1 [6] [%] × 10 [7] [%] × 100	0 7	0	
P33.55	[W5]	7-3	0 48	19	
P33.56	[W5]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%] × 1 [6] [%] × 10 [7] [%] × 100	0 7	2	
P33.57	[W6]	7-3	0 48	26	
P33.58	[W6]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%] × 1 [6] [%] × 10 [7] [%] × 100	0 7	6	
P33.59	[W7]	7-3	0 48	30	
P33.60	[W7]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%] × 1 [6] [%] × 10 [7] [%] × 100	0 7	1	
P33.61	[W8]	7-3	0 48	14	

P33.70	[W12]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%] × 1 [6] [%] × 10 [7] [%] × 100	0 7	0	
P33.71	[W13]	7-3	0 48	0	
P33.72	[W13]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%] × 1 [6] [%] × 10 [7] [%] × 100	0 7	0	
P33.73	[W14]	7-3	0 48	0	
P33.74	[W14]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%] × 1 [6] [%] × 10 [7] [%] × 100	0 7	0	
P33.75	[W15]	7-3	0 48	0	
P33.76	[W15]	[0] × 1 [1] × 10 [2] × 100 [3] × 1000 [4] × 10000 [5] [%] × 1 [6] [%] × 10 [7] [%] × 100	0 7	0	

1

0

CW0.0	RUN	' 0 ' ' 1 '

CW0.1	RUN@REV	' 0 '	
		' 1 '	
CW0.2	REQUEST_INFO	' 0 '	
		' 1 '	
CW0.3	RESET	' 0 '	
		' 1 '	
CW0.4	External FAULT	' 0 '	
		' 1 '	Profibus
CW0.5	External ALARM	' 0 '	
		' 1 '	Profibus
CW0.6	DRIVE ENABLE	' 0 '	
		' 1 '	
CW0.8	SPD/TRQ Switch	' 0 '	
		' 1 '	
CW0.9	HOOK	' 0 '	
		' 1 '	
CW0.10	Anti Crab Open	' 0 '	
		' 1 '	
CW0.11	Torque_Limit_Ctrl	' 0 '	
		' 1 '	PROFIBUS
CW0.12	MOTION_CTRL	' 00 '	1
		' 01 '	2
CW0.13		' 10 '	3
		' 11 '	4
CW0.14	TORQUE_ZERO	' 0 '	
		' 1 '	
CW0.15	FREE_RUNNING_STOP	' 0 '	
		' 1 '	

1

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CW1.0	ANTI_SWAY	' 0 ' ' 1 '
CW1.1	UP_LMT_SW	' 0 ' ' 1 '
CW1.2	POSITION_CTRL_ENABLE	' 0 ' ' 1 '
CW1.3	BASE_POINT_1	' 0 ' ' 1 '
CW1.4	ANTI_SWAY_MEC	' 0 ' ' 1 '
CW1.5	POS_AI_HOISTRUN	
CW1.6	Soft_Landing	' 0 ' ' 1 '
CW1.10	AUTO_SEMI_START	' 0 ' ' 1 '

2

0

SW0.0	READY	' 0 ' ' 1 '
SW0.1	RUN	' 0 ' ' 1 '
SW0.2	FAULT	' 0 ' ' 1 '
SW0.3	MOTOR BRAKE	' 0 ' ' 1 '
SW0.4	WARNING	' 0 ' ' 1 '
SW0.5	DIRECTION	' 0 ' ' 1 '

SW0.6	M_STEP0	1 ' 0 ' 1 ' 1 ' 1
SW0.7	M_STEP1	2 ' 0 ' 2 ' 1 ' 2
SW0.8	M_STEP2	3 ' 0 ' 3 ' 1 ' 3
SW0.9	M_STEP3	4 ' 0 ' 4 ' 1 ' 4
SW0.10	Reserved	
SW0.11	Reserved	
SW0.12	REMOTE/LOCAL	/ ' 0 ' ' 1 '
SW0.13	Reserved	
SW0.14	MOTION SEL	
		' 00 ' 1
		' 01 ' 2
		' 10 ' 3
SW0.15		' 11 ' 4

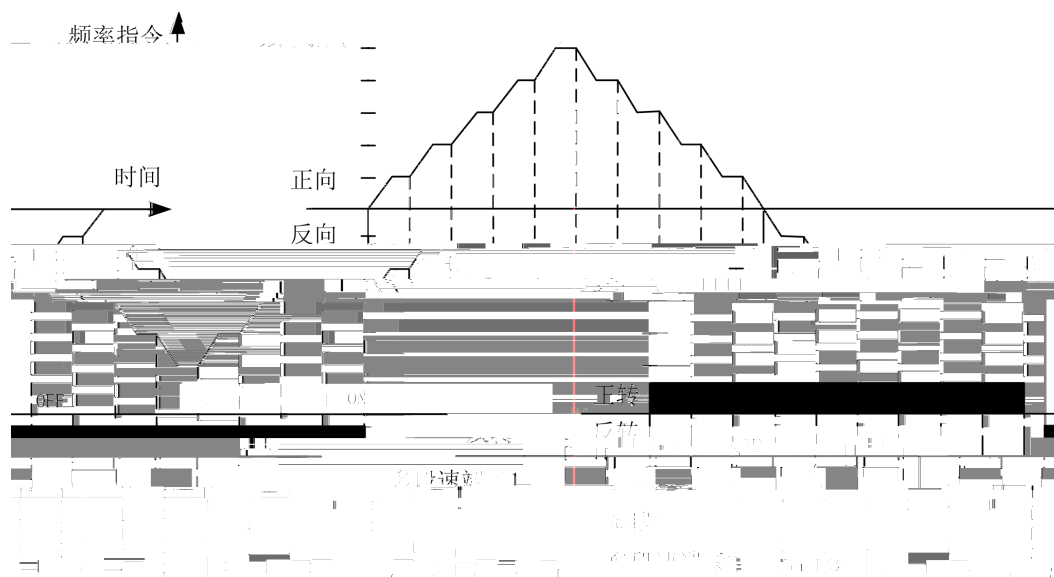
4	3	20	[%]
5	4	21	[%]
6	[32]	22	[%]
7	[32]	23	[Hz]
8	32_MSW	24	
9	32_LSW	25	
10		26	1[%]
11		27	2[%]
12	0 @32bit	28	
13	1 @32bit	29	
14	2 @32bit	30 37	SET_W12 19
15	3 @32bit		

0		23	
1	0	24	
2	1	25	
3	2	26	
4	3	27	A
5	4	28	B
6	5	29	C
7	0 @32bit	30	
8	1 @32bit	31	
9	2 @32bit	32	
10	3 @32bit	33	1
11	4 @32bit	34	2
12	5 @32bit	35	
13	[32]	36	
14	[32]	37	
15	32bit_MSW	38	
16	32bit_LSW	39	

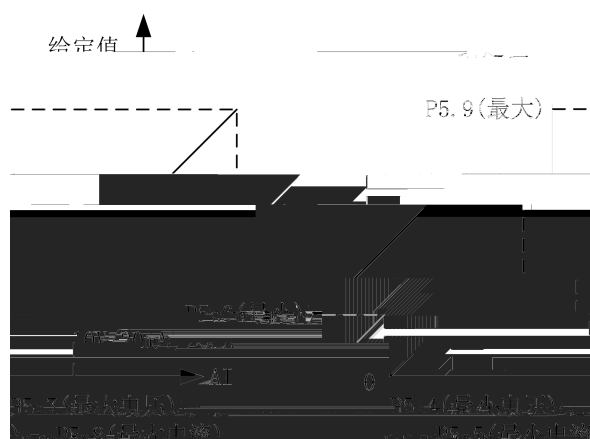
17		40	
18		41	Mwh
19		42	Kwh
20	[rpm]	43	Mwh
21	[rpm]	44	Kwh
22		45 48	AW26 29

B. [1]

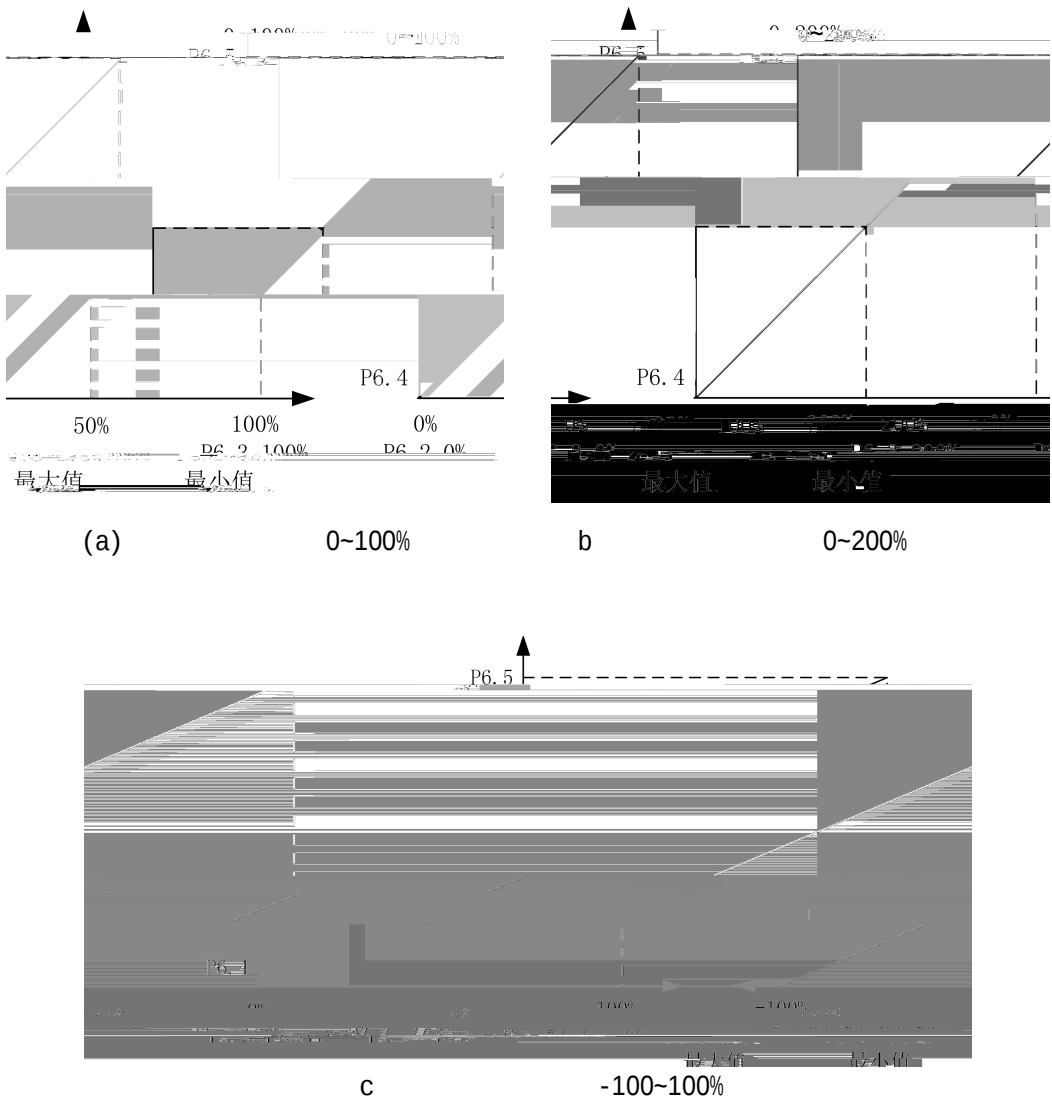
4 16 (8421)
(FORWARD) (REVERSE) P12.2(1)



7.2

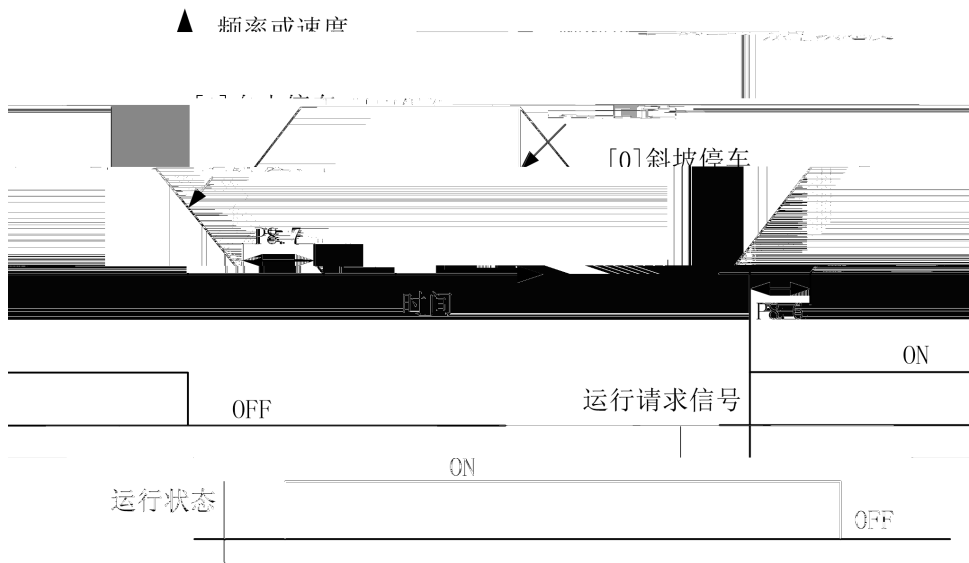


7.3



7.4

- 1
- P8.3
- [0]
- P8.6
- P8.7
- P8.6



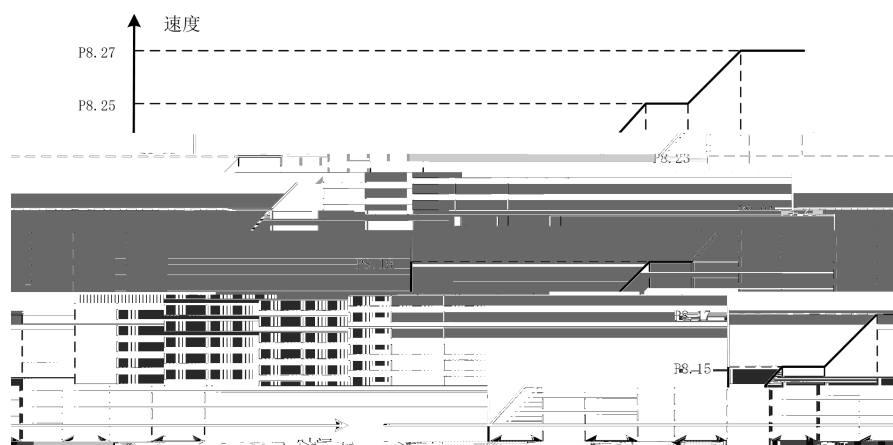
2

P8.14

P8.14

P8.33

P8.33



P8.1

$$1 \quad =P8.14 \times P8.16 \times (\quad \times 0.001)$$

$$1 \quad =P8.33 \times P8.35 \times (\quad \times 0.001)$$

7.5

1

P12.2 P12.17

P12.0=[1]

	1	2	3	4
1	0	0	0	0
2	1	0	0	0
3	0	1	0	0
4	1	1	0	0
5	0	0	1	0
6	1	0	1	0
7	0	1	1	0
8	1	1	1	0
9	0	0	0	1
10	1	0	0	1
11	0	1	0	1
12	1	1	0	1
13	0	0	1	1
14	1	0	1	1
15	0	1	1	1
16	1	1	1	1

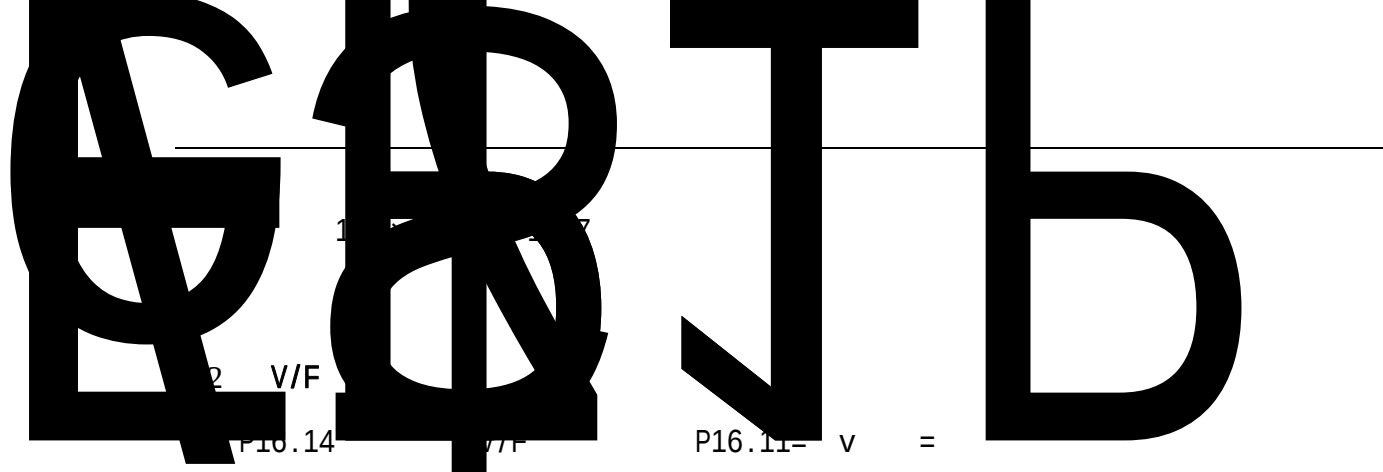
0 OFF 1 ON

7.6 V/F

1

P16.0 P16.9

P16.7 120 × P16.5/P16.6 P16.9



g b O E

m

$$L = T^2 \frac{g}{(2 \pi) (2 \pi)} = T^2 \quad 0.2485$$

q

5

g=9.8

P8.59.

2-J D

1)



01.64 ‘

2 32

LSW ‘ 101.65 ‘

2 32 }

MSW C-1

2)

>|Vo ð

1m

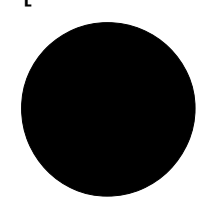
2EJ

101.64 101.65

64 x

101.65

N



ΛIT ÇP9D €

λΛQ2-02!λDΛEWS2. 1 i•0-

Q q

8.

8.1

W01	SYS_NOT_RDY	(Ready)	P1.1 -500
W02	NO_DRV_ENABLE	[]	P3
W03	LOCAL_EM	[]	P3
W04	REMOTE_EM	[]	P3
W09	DP P/B ALARM	DP	DP
W10	MODBUS MODBUS ALARM	Modbus	Modbus
W15	PARAMETER ERROR		
W18	Temp_Sensing Fail		
W20	SLV_NOT_RDY		
W21	1 SLV1_CAN_ERR	1	1

8.2

[E114]	MOP	P7.59
[E115]	OS	P7.19 P7.19
[E118]	PG ERROR	P20.14 P20.15
[E119]	SPEED ABNORMAL	P20.14 P20.15 P7.31 P7.32
[E138]	TEMP_SENSING FAIL	
[E162]	1 CAN SLV1_CAN_ERR	1
[E167]	CAN CAN_ERR	
[E180]	DP P/B ERROR	
[E181]	DP P/B_EM	CW0.4
[E200]	LOCAL_EM	[] P3
[E201]	REMOTE_EM	[] P3
[E202]	Modbus MODBUS EMERGENCY	Modbus CW0.4
[E203]	DRIVE DISABLED	DP
[E210]	Panel Error	
[E220]	CRC MEMORY CRC ERR	
[E221]	PARAMETER ERROR	

9.

	
1.	
2.	
3.	
4.	

	
1.	CMOS
2.	
3.	

9.1

9.2

	1. 2.	1. > 40 < 95% 2.
	1. 2.	1. 2.
	1. 2. 3.	1. 2. 3.
	1. 2.	1. 2.
	1. 2.	1. 2.

9.3

PCB		

9.4
