GUIDE



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6. 28

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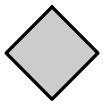
1.

1.1









1.2

(1) PLC DP

1.3

2. ج '

2.1

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1. └ كج شخ شخ
2. ´ غ ا
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2.2 ج ممم أ

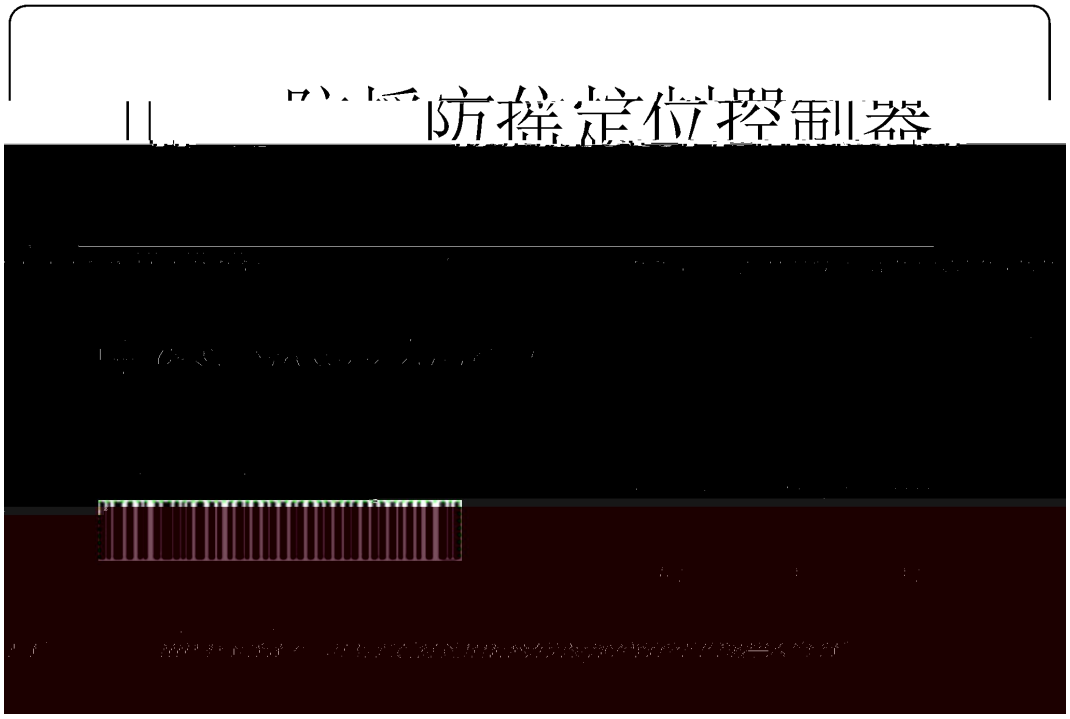
└ كج ممم كج C

CrSCU 1 n2(

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CrSCU	└ كج	100	AC220V

2

ك ل 2-2 يد



ممم CrSCU ك ل

100 ↓ ╠

220AC 220V

2

2.3 ج

ا AC220V

ŦŦ DP ŦŦ

IP20

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2.7 :

GDHF-K6C1	GDHF-K6C1 أ LCD
GDHF-PN02 ١	PROFINET TCP/IP غ IT ‰ GDHF-PN02 ١ PROFINET ٦
GDHF-PGD2 PG ١	GDHF-PGD2 PG ١ 15V
GDHF-DP03 ١	GDHF-DP03 ١ ‰ Profibus ‰

2.8

2.8.1

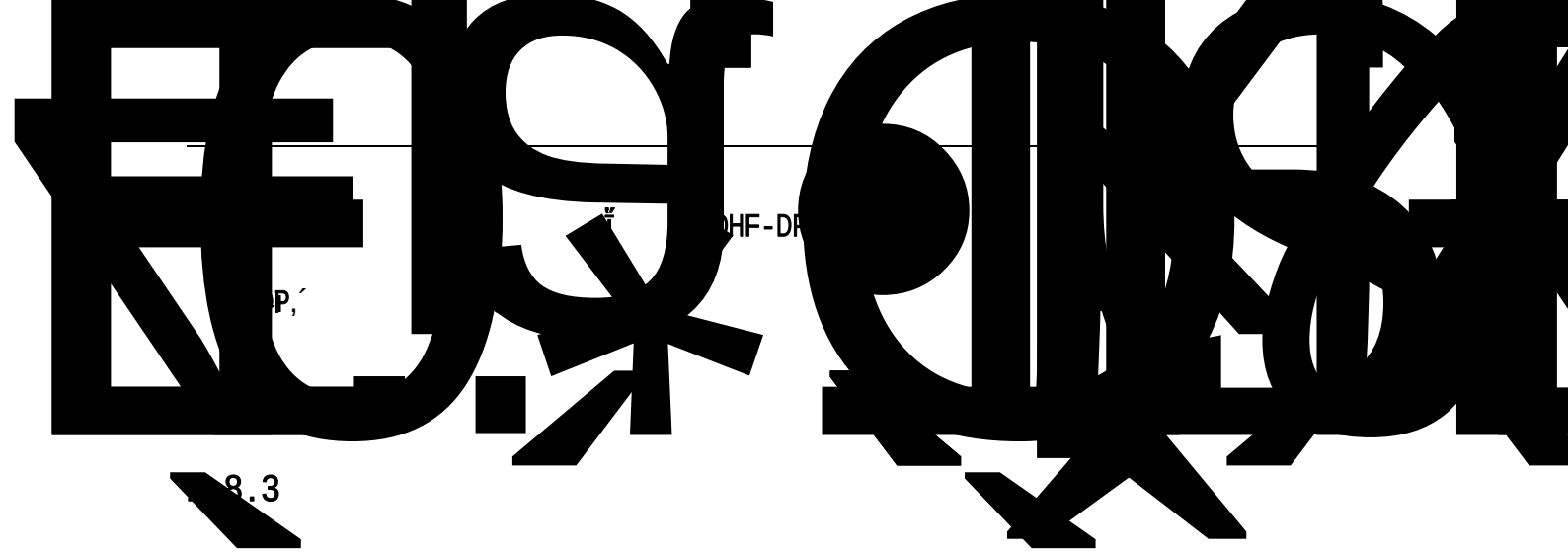
3 №

2.8.2

GDHF-DP03 ١ غ J14 GDHF-DP03

١

- GDHF-DP03 ١
- ١
- DP ١
- DP





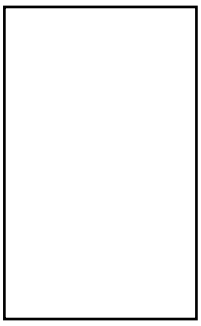
2.8.4 PROFIBUS

DP

№

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

7 A B غ



2.9 ٧

2.9.1 PGD2 ٧

GDHF-PGD2 □ PG ٧ ~ 10

B-

PG ٧ ّ ∫ أ ّ كح 2

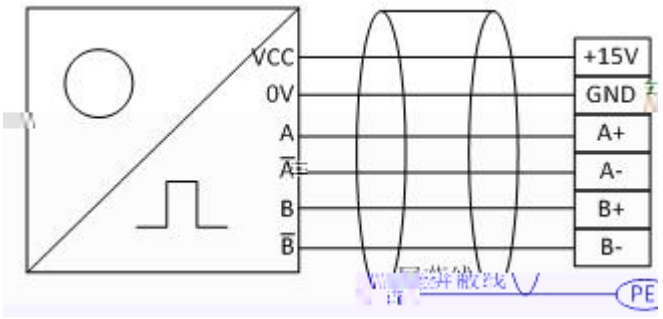
١ PE كح L ضر كح 3

أ ّ ضر

قمم ٧ PGD2 ∓ كح مشي

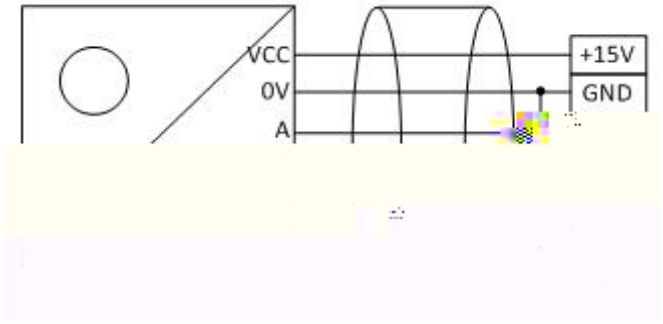
قمم ١ قمم

a ـ قمم ∓ قمم ∓ كح 1

يد		
	ج	ّقمم كح
		HLE45-1024L-6F.AC
	٧	RHI90N-ONAK1R61N-1024
		EC120P45-H6PR-1024

b ١

يد



2

C4 RC

3 ר עב w :

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1	1	+10V	10V ₣
2	2	GND	₣ ضر , ١
3	3	AI1+/AV1	1 ~ 20mA 0/4 مخ 1 ١ 10V -10 مخ
4	4	AI1-	1
5	5	AI2+/AV2	2 ~ 20mA 0/4 مخ 2 ١ 10V -10 مخ
6	6	AI2-	2
7	7	AO1	1 ₣ ₣ 0/4 20mA J1 I עב a ₣ ١0 10V J1 V עב b ~ אp
8	8	AO2	2 ₣ ₣

3

3.2 ㄴ ㄱ ㅂ

3

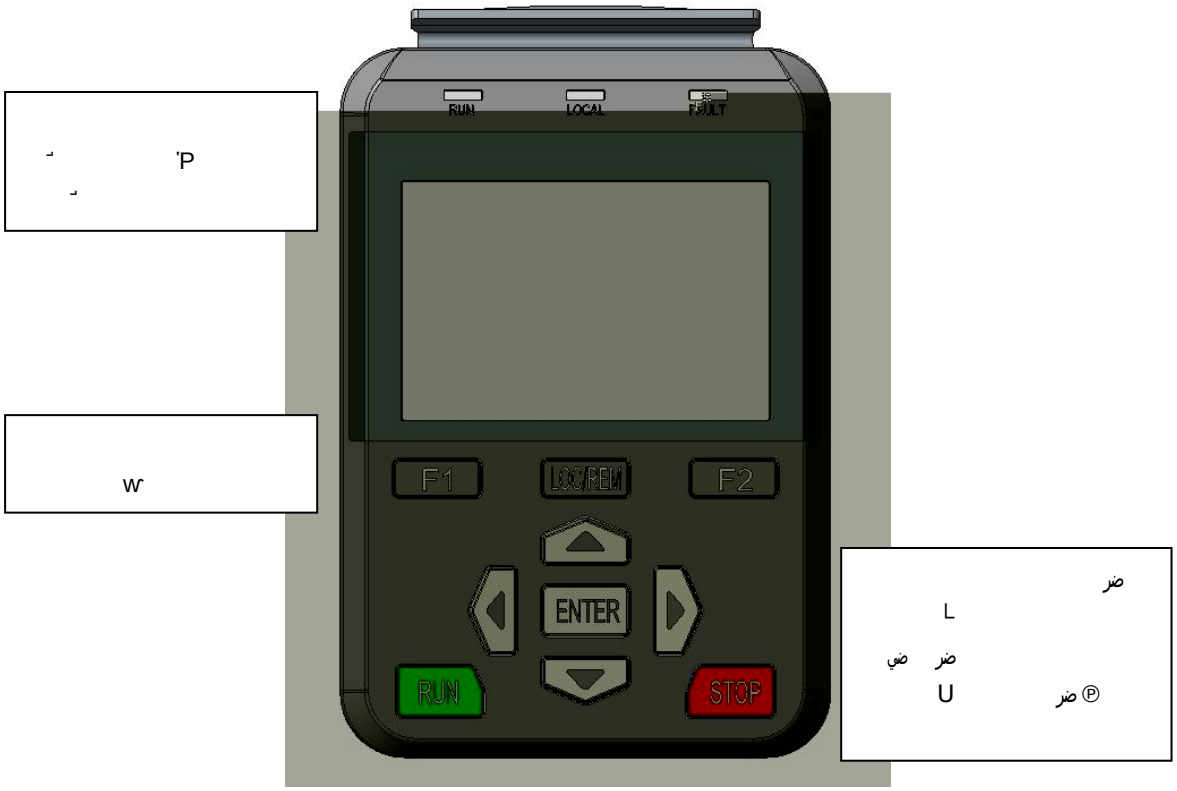
4.

4.1

LOCAL/REMOTE F1 ´ يح كح كح

≠ ˆ ENTER غ ˜ /RESET STOP RUN F2

غ L ǎα كح L



4

4.2

▼ ا ∫ ا ا غ ا

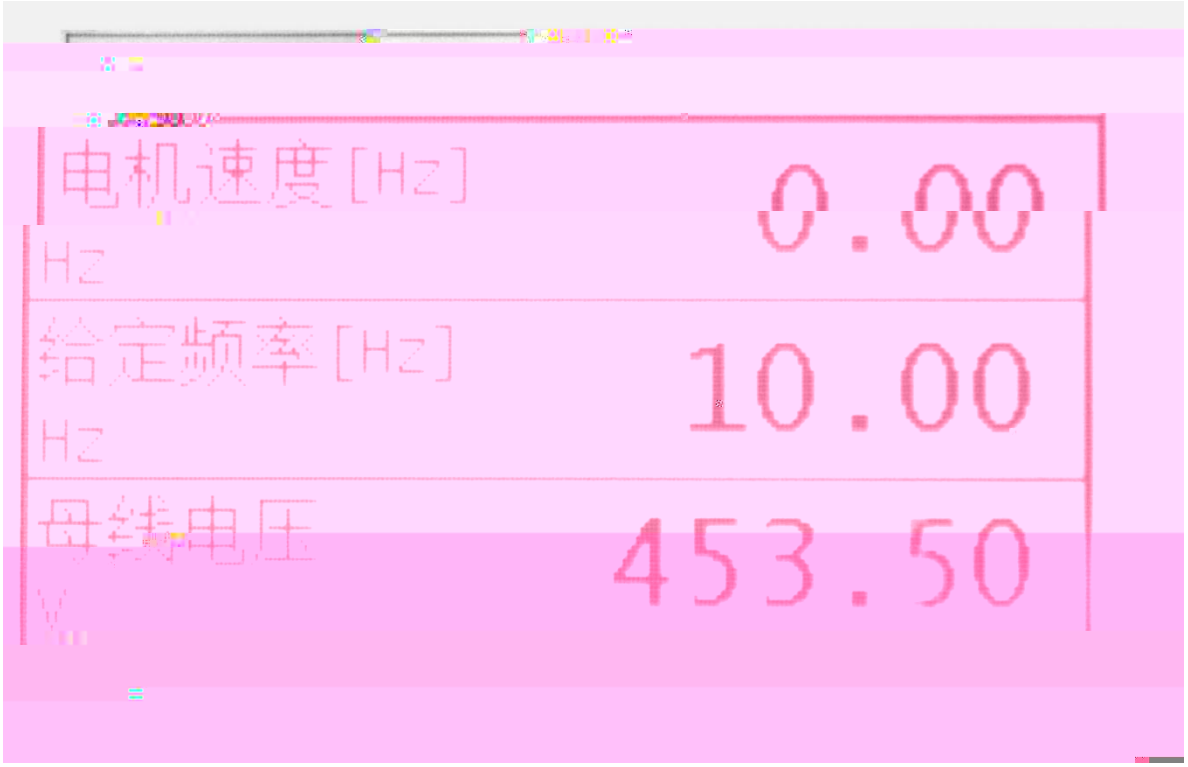
⋮ ٧ ▲ ا ∫ عج ا

ENTER ǎα ˆ U

ă RUN غ STOP غ كـ

LOCAL/REMOTE ضر/

4.3 يد ا غ



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w
FWD REV ï h
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A ا ‡ ╠ ‡
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5	Reset Error	╠
6	Monitor Setting	
7	Firmware Version ﻩ	L ﻩ ~ ع ﻩ ~
8	Menu Language ﻯ	ﻯ

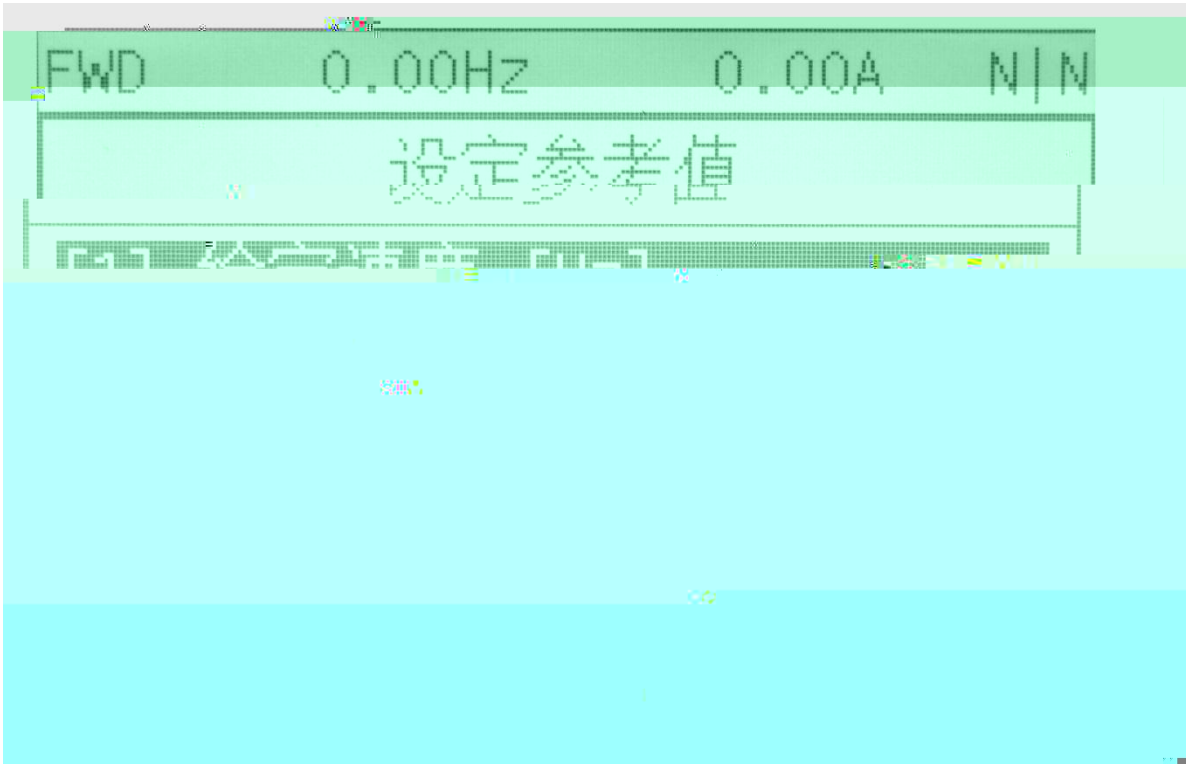


4

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1	Parameter Setting ă	└ ر ă
	Function n	
2		

4.4 ٧



1 ăĕ Reference Set

└ق ٧

	№	٧	ăĕ
Reference Set ăĕ	Speed	[Hz]	٧ Hz
		[%]	٧ %
	Torque	[%]	٧ %
	Torque limiter └	[%]	└ %
	∓1	[%]	1 ∓
	∓2	[%]	2 ∓

2 h Change Direction

٧ h

3 ╠ Current Error

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4 ╠ ᵽ Current Warnning

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5 Reset Error

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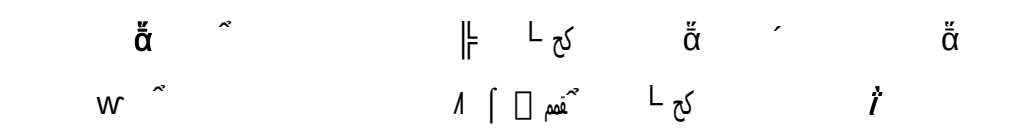
6 Monitor Setting

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7 ᵩ Firmware Version

4

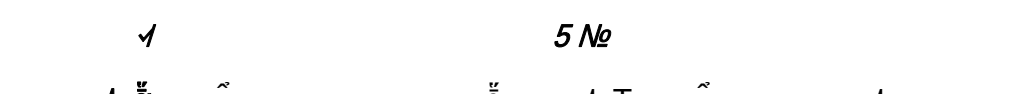
11	Compare Parameter	

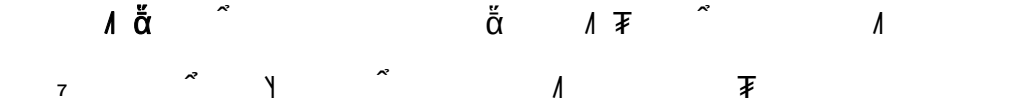




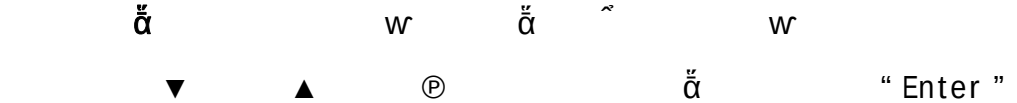










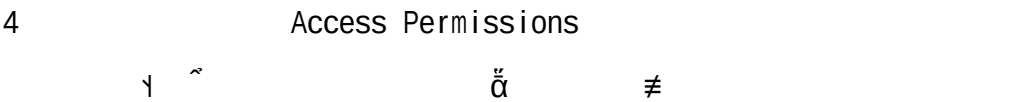


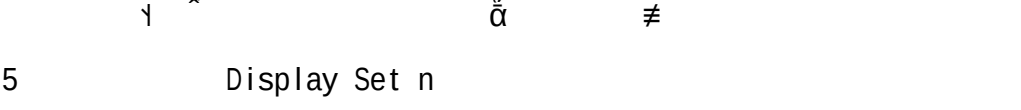
















4

3 Fault Record

4 Access Permissions

5 Display Set n

5. ר ק

5.1 ר ק

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2 ר ק V/F ר

5.2 ר ק

5.2.1

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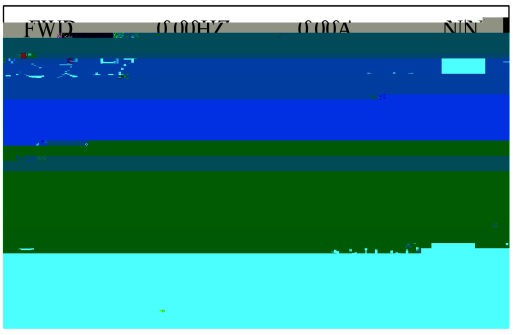
1 ן ץض מ ף

AC220V 50Hz

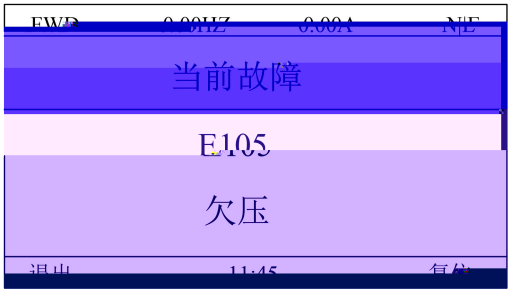
2 ר ק ר ' ר ן

3 PG ק ו PG ק ו ק ן

5.2.2



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5.2.3 ǎ Δ .

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5.2.4 ǎ

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w	O		
P1.1	۱	۱ ۱ 485V └ ك	-500
P7.14			1000
P7.15			1000
P7.59	∓	∓ ∓	0

5.2.5 ∓ ǎ

1 DP ∓

w	O		
P33.0	Profibus	/ Profibus	1
P33.1	خي ضر	└ ك ضي PLC خي ضر	
P33.21	[W4]	PLC └ └ ك	1 └ 0
P33.22	[W4]		0 1
P33.23	[W5]	PLC └ └ ك	2 └ 1
P33.24	[W5]		0 1
P33.53	∓ [W4]	└ ك ǐ	1 0

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

2 ₹

w	O		
P6.0	AO 1 ₹	₹	1 ~ ₹
P6.2	AO 1 ₹	AO1 ₹	-100.0
P6.3	AO 1 ₹	AO1 ₹	100.0

5.2.6 ă

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23 └ ~ w

24 ~ w

25 FUNC 25

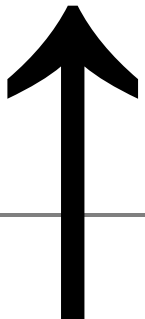
26 - └ ~ └ ↕ └

27 FUNC 27

11	h	h	~
12	ɒ	ɒ	
13	ɒ		
14	ɒ	ɒ	
15	ɒ	ɒ	
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	PROFIBUSw 1	PROFIBUSw 1 ₮1	~
50	PROFIBUSw 2	PROFIBUSw 2 ₮1	~
51	PROFIBUSw 3	PROFIBUSw 3 ₮1	~
52	PROFIBUSw 4	PROFIBUSw 4 ₮1	~
53	PROFIBUSw 5	PROFIBUSw 5 ₮1	~
54 56	FUNC 54 FUNC 56		



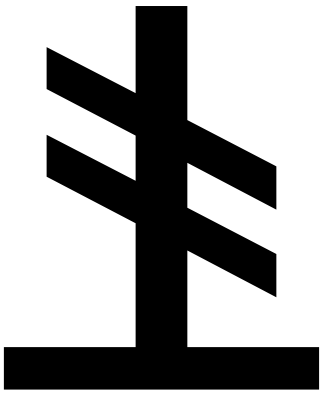




6.5 P5

w	O			مخ	
P5.0	AI1	قمم	[0] [1]0 +10V [2]-10 +10V [3]0 20mA	0 3	1
			AI1		
P5.1	AI1		مخـا أ ا ـ	0.0 1000.0 [ms]	25.0 [ms]
			↕ أ ذ ـ		
P5.2	AI1	ا	AI1 ا	-10.00 10.00 [V]	0.000 [V]
P5.3	AI1		AI1	-20.00 20.00 [mA]	0.000 [mA]
P5.4	AI1	ا	AI1 ا	-10.00 10.00 [V]	0.000 [V]
P5.5	AI1		AI1	0.00 20.00 [mA]	0.000 [mA]
P5.6	AI1		AI1	-300.0 300.0 [%]	0.0 [%]
P5.7	AI1	ا	AI1 ا	-10.00 10.00 [V]	10.000 [V]
P5.8	AI1		AI1	0.00 20.00 [mA]	20.000 [mA]
P5.9	AI1		AI1	-300.0 300.0 [%]	100.0 [%]
P5.18	AI2	قمم	[0] [1]0 +10V [2]-10 +10V [3]0 20mA	0 3	3

6



4	₹	₹
5	~	~
6	~	~
7		
8	۱ (%)	۱ (№ ₹)
9	₹ w	₹ w
10	₹ ۱	₹ ۱
11	└ ح (%)	└ ح (150 № ₹)
12	DP	Profibus
13	ă	ă P6.7 P6.21 ₹
14	ض	₹

6.7 ă P7

w	O		مخ	
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]

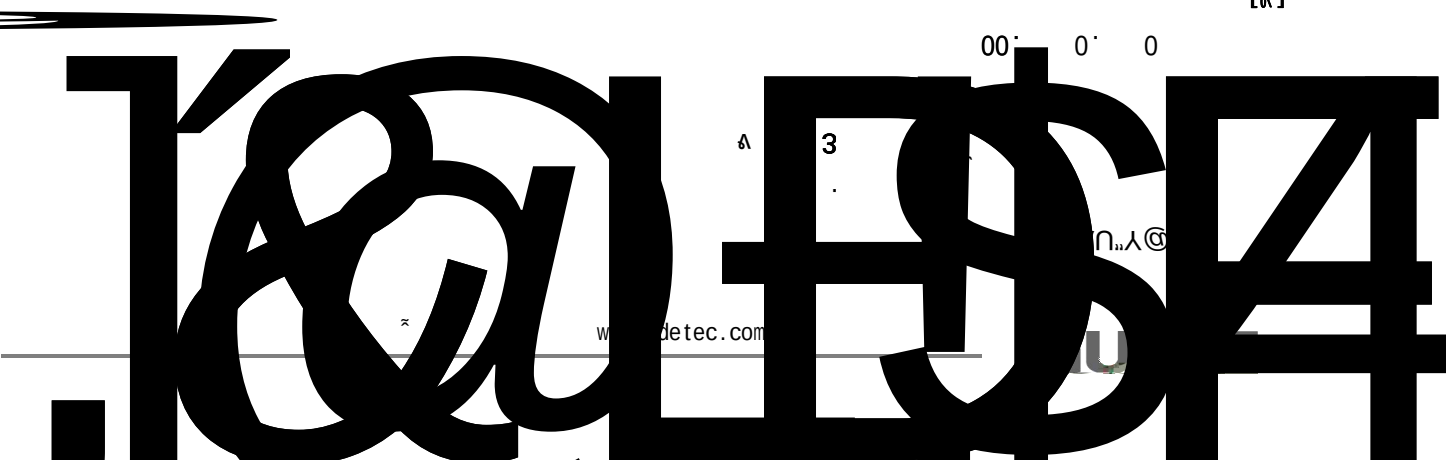
6.8 1 Ω └ P8

w	O			مخ	
		[0]			
		[1]			
P8.0 Ω		[2]DP		0 4	0
		[3]MODBUS			
		[4] w	شجـ		

P8.3

6

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



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

6

6.10 1 ă V/F P16

w	O		مخ	
P16.0	۱	۱	320 460 [V]	380 [V]
P16.2	w	ă	0.0 4000.0 [kW]	ﻗﻤﻢ [kW]
P16.3	۱	ă	320 460 [V]	380 [V]
P16.4		ă	0.0 6500.0 [A]	ﻗﻤﻢ [A]
P16.5		ă	0.0 300.0 [Hz]	50.0 [Hz]
P16.6		ă	0 6000 [rpm]	1465 [rpm]
P16.7		ă	2 12 [pole]	4 [pole]
P16.9	□	ă	0 7200 [rpm]	1500 [rpm]

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

6

P16.64	V/F	V/F	0.0 1000.0 [%]	100.0 [%]
P16.66	└	V/F └	0.0 1000.0 [%]	100.0 [%]
P16.67	Ω˙ └˙	Ω˙ └˙	0.0 1000.0 [%]	100.0 [%]
P16.68	Ω˙ └˙ №	Ω˙ └˙ №	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

w	O		مذ	
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	/ Ⅱ	0.00 650.00	30.00
P29.4	Pos Reach Bandwidth	ضر	0.00 100.00 [mm(mrad)]	10.00 [mm(mrad)]
P29.5	Pos Reach Time	ضر	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

w O			مخ
P33.0 Profibus	[0] [1]	0 1	0
P33.1 ضي خ	PLC	1 255	1
P33.2 مم	[0]PPO 1 [1]PPO 2 [2]PPO 5 [3]GUIDE	0 3	2
P33.3 Ɣ ṗ	Ɣ	0 16	14
P33.4 ₣ Ɣ ṗ	[ẘo ₮ ۍ Ɣ [∀ O [0] [⊔ ʀ [1]	0 16	14
P33.5 "خ v ˉ ƧϑƧƨ ·	[ɾ ı] ⊕ ⁞ [2] [3]	0 3	0

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		[0] × 1 [1] × 10			
P33.30	[W8]	[2] × 100 [3] × 1000 [4] × 10000	0	4	1
P33.31	[W9]	7-2	0	37	0
		[0] × 1 [1] × 10			
P33.32	[W9]	[2] × 100 [3] × 1000 [4] × 10000	0	4	0
P33.33	[W10]	7-2	0	37	0
		[0] × 1 [1] × 10			
P33.34	[W10]	[2] × 100 [3] × 1000 [4] × 10000	0	4	0
P33.35	[W11]	7-2	0	37	0
		[0] × 1 [1] × 10			
P33.36	[W11]	[2] × 100 [3] × 1000 [4] × 10000	0	4	0
P33.37	[W12]	7-2	0	37	0
		[0] × 1 [1] × 10			
P33.38	[W12]	[2] × 100 [3] × 1000 [4] × 10000	0	4	0
P33.39	[W13]	7-2	0	37	0
		[0] × 1 [1] × 10			
P33.40	[W13]	[2] × 100 [3] × 1000 [4] × 10000	0	4	0
P33.41	[W14]	7-2	0	37	0
P33.42					

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

6

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 L

L 0

	w	
CW0.0	RUN	h ~ ‘ 0 ’ ‘ 1 ’ h

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 ’ L ‘ 1 ’ L
CW0.9	HOOK	‘ 0 ’ ‘ 1 ’
CW0.10	Anti Crab Open	‘ 0 ’ ‘ 1 ’
CW0.11	Torque_Limit_Ctrl	‘ 0 ’ ă ‘ 1 ’ PROFIBUS
CW0.12 CW0.13	MOTION_CTRL	‘ 00 ’ 1 ‘ 01 ’ 2 ‘ 10 ’ 3 ‘ 11 ’ 4
CW0.14	TORQUE_ZERO	‘ 0 ’ ‘ 1 ’
CW0.15	FREE_RUNNING_STOP	‘ 0 ’ ‘ 1 ’

└ 1

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 ’

6

2

0

	w	
SW0.0	READY	└ ‰ ‘ 0 ’ └ ‰ ‘ 1 ’ └ ‰
SW0.1	RUN	└ ‘ 0 ’ └ ‘ 1 ’ └ ضي
SW0.2	FAULT	‘ 0 ’ └ ‘ 1 ’ └
SW0.3	MOTOR BRAKE	‘ 0 ’ ‘ 1 ’
SW0.4	WARNING	p ‘ 0 ’ └ p ‘ 1 ’ p
SW0.5	DIRECTION	h ‘ 0 ’ h ‘ 1 ’ h

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

1

	W	
SW1.0	TARGET_REACH	ㅔ ‘0’ ‘1’

0		16	ㅎ 4 @32bit
1	ㄴ 0	17	ㅎ 5 @32bit
2	ㄴ 1	18	[Hz]
3	ㄴ 2	19	[rpm]

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		

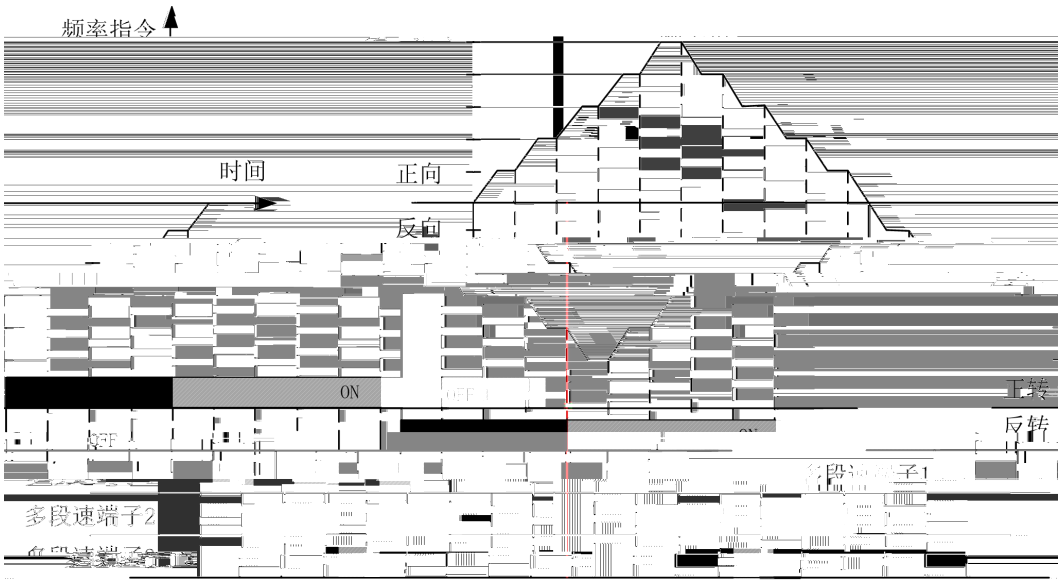
0		23	
1	0	24	
2	1	25	
3	2	26	
4	3	27	A
5	4	28	B
6	5	29	C
7	0 @32bit	30	
8	1 @32bit	31	
9	2 @32bit	32	
10	3 @32bit	33	1
11	4 @32bit	34	2
12	5 @32bit	35	
13	[32]	36	
14	[32]	37	
15	32bit_MSW	38	
16	32bit_LSW	39	

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

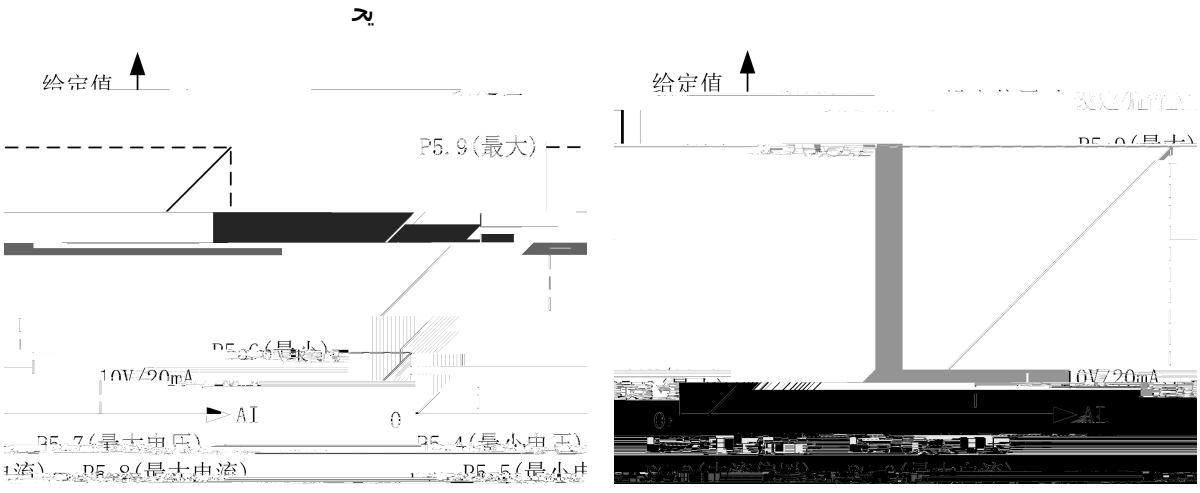
B. [1] L

4 16 ২ (8421) 7

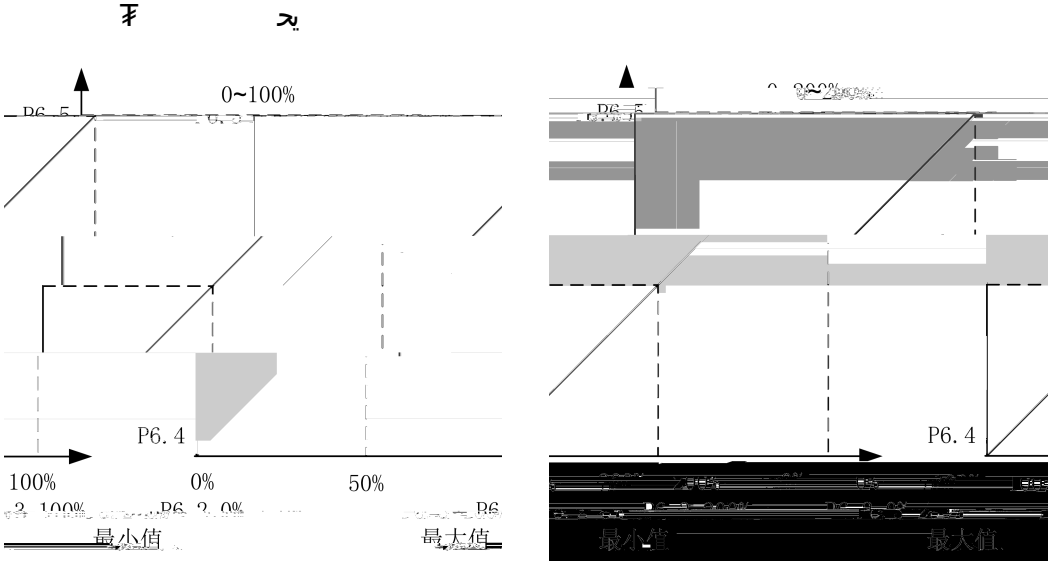
(FORWARD) ǐ (REVERSE) ˜ ǎ P12.2(1) ɛ



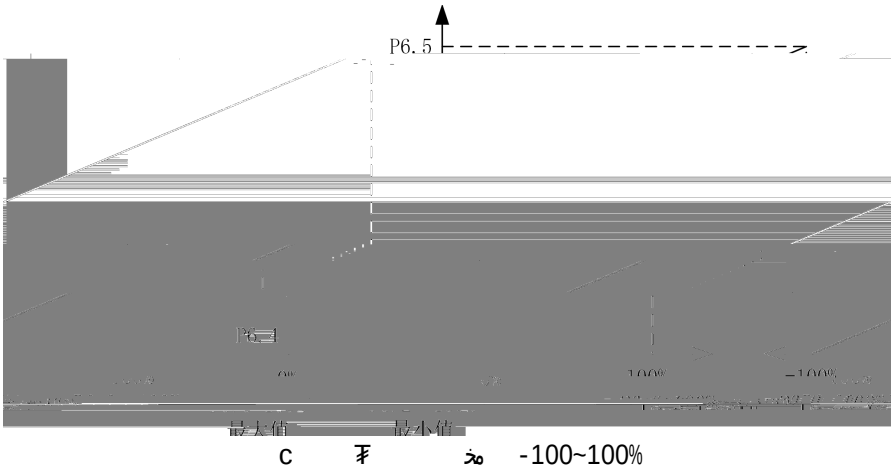
7.2



7.3 ∓



(a) ∓ ﻣﺨ 0~100% b ∓ ﻣﺨ 0~200%



c ∓ ﻣﺨ -100~100%

7.4 Ω └ă̈

1

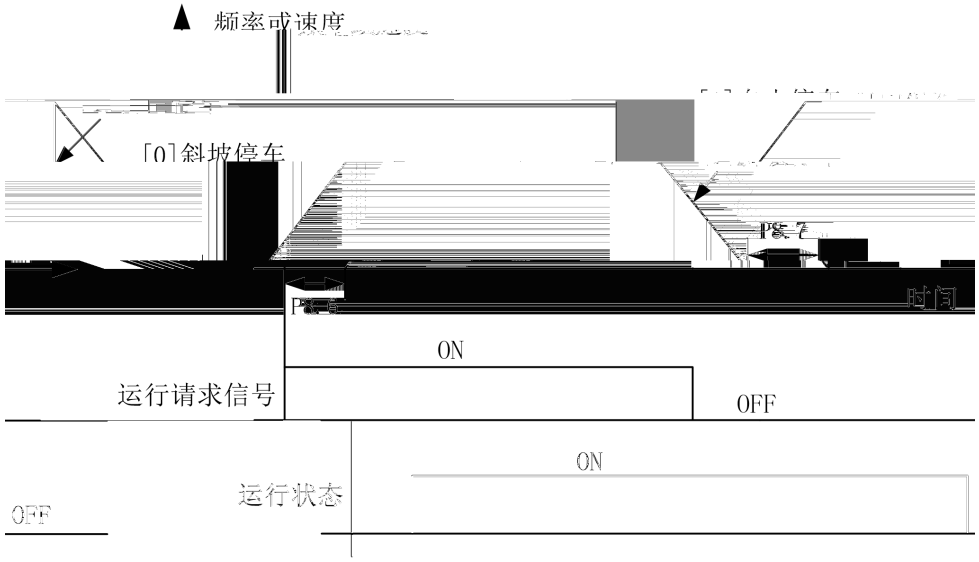
P8.3 ⋮ ă̈ ﻳﺤ

[0] ﺗﻤﺠ ⋮ ⋮ ∫

P8.6 └ ﻛﺞ ŭ ∓ Ω⁻ ⊥ ﺿﻲ P8.6 ṗ

U Ω⁻ ă̈ ﻳﺤ

P8.7 U ﻯ ĭ ﺿﻲ ă̈ ṗ └ ﻛﺞ



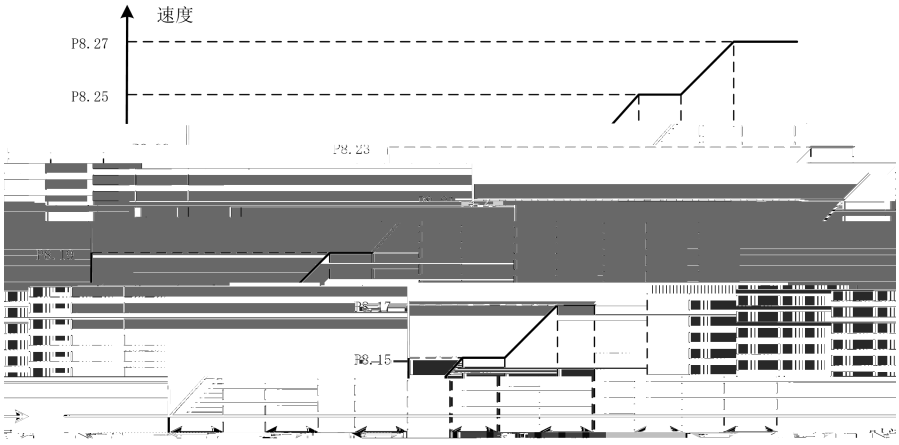
2 v ⋮ L

L ᘏ ˆ v ⋮ ǐ v ⋮ P8.14 v ᐧ

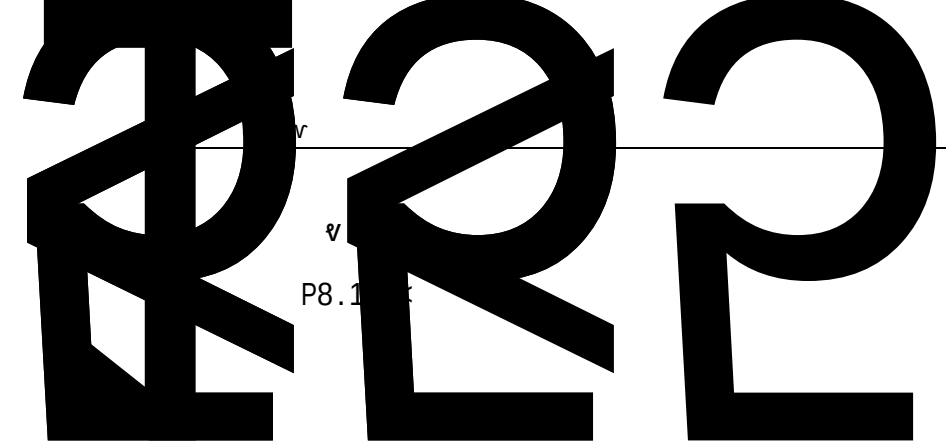
v v P8.14 P8.33 ⋮ ᐧ

⋮ ⋮ P8.33

v ’ ᘏ



7



ѵ Ѵ 1 ѵ =P8.14 × P8.16 × (ѵ × 0.001)

⋮ Ѵ 1 ⋮ =P8.33 × P8.35 × (⋮ × 0.001)

7.5 ė └ └

1

P12.2 P12.17 └ ر ă̈

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

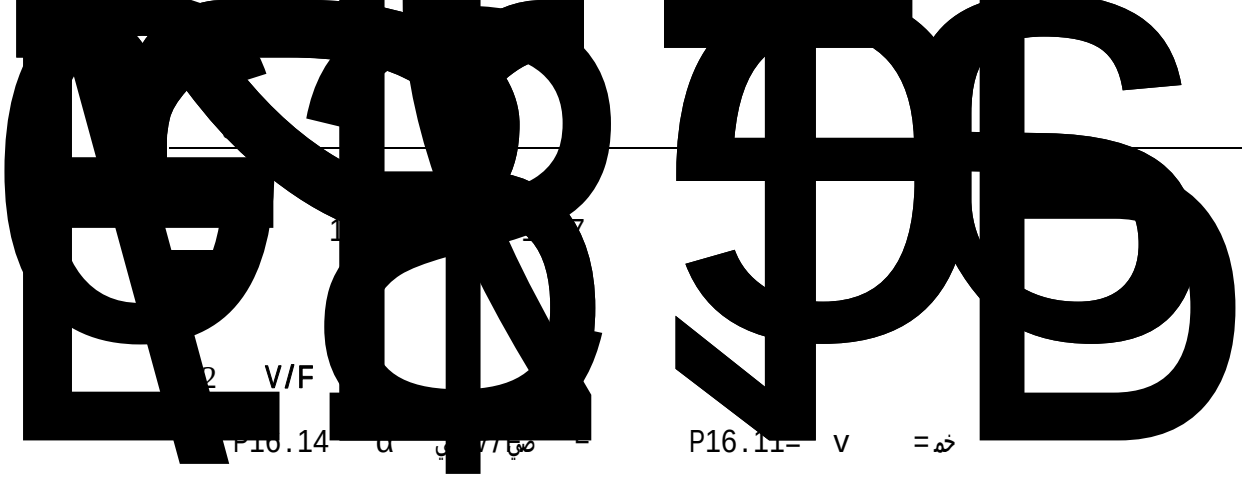
7.6 ă̈ ė V/F └ ă̈

1 ă̈

P16.0 P16.9 ă̈ ⌟ └ ر ă̈

⌡ └ ر ă̈ ă̈ ˜ └ ر

P16.7 120 × P16.5/P16.6 ŭ P16.9 □



P16.14 d ضﻲ/ﻲ = P16.11 v خﻫ=

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№ ٧ m w

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

և ∫ h ٧

և ŭ 5 և ﺵ և g=9.8

∫ Ω P8.59.

Ⅱ

1) ” ” ă 101.64 ‘ ﻁ 2 32

LSW ’ ė ă 101.65 ‘ ﻁ 2 32 MSW ’

2) ٦ ĩ ﻁ 1m ă

101.64 ė 101.65 U ă 101.64 x ă

101.65

8. ï

8.1 þ

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þ	þ	þ / غ	
W01	‰ SYS_NOT_RDY	‰ ⌠ كح (Ready)	ă P1.1 ۱ -500
W02	ـ ۀ NO_DRV_ENABLE	[ـ ⌡ ì] ⌠ ۀ	ă P3 ă ï كح ⌠
W03	ض þ LOCAL_EM	[ض ⌡ ì ۀ]	ă P3 ă ï كح
W04	þ REMOTE_EM	[⌡ ì ۀ]	ă P3 ă ï كح
W09	DP þ P/B ALARM	DP ۷ þ	DP ⌠
W10	MODBUS þ MODBUS ALARM	Modbus þ	Modbus ⌠
W15	ă PARAMETER ERROR	ă	ă ٦ ₣ مذ
W18	Temp_Sensing Fail	þ	
W20	‰ SLV_NOT_RDY	ŭ	⌠ ٦
W21	1 SLV1_CAN_ERR	1	1 ٦

8

8.2

[E114]	₣ MOP	P7.59 ₣
[E115]	OS	ắ P7.19 ắ P7.19 ک شخ ï ٦
[E118]	ک PG ERROR	ک غ ắ P20.14 P20.15 ٦
[E119]	SPEED ABNORMAL	ک غ ắ P20.14 P20.15 ٦ ắ P7.31 P7.32
[E138]	TEMP_SENSING FAIL	
[E162]	1 CAN SLV1_CAN_ERR	1 ٦
[E167]	CAN CAN_ERR	ک ٦
[E180]	DP P/B ERROR	٧ ٦ ٦
[E181]	DP ₱ P/B_EM	CW0.4
[E200]	ض LOCAL_EM	[ض] ắ P3 ắ ک ï
[E201]	REMOTE_EM	[ ] ắ P3 ắ ک ï
[E202]	Modbus MODBUS EMERGENCY	Modbus CW0.4 ì
[E203]	DRIVE DISABLED	DP
[E210]	ک Panel Error	٦
[E220]	ک CRC MEMORY CRC ERR	
[E221]	ắ PARAMETER ERROR	ắ ٦

9. Ī



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9.2

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∞≠ ‰	ρ	
1. > 40 < 95% o 2. ء	1. 2.	
1. 2. كل	1. 2. ك└	' ا
1. ه ₮ ـ 2. ء كل 3. ـ نھ	1. ٦ ـ 2. كل 3.	ك└
1. 2. كل ~شخ	1. ٦ ـ 2. كل	
1. ρ مخ ض ١ 2. ₮ ض	1. ١ 2. ₮	₮ ă

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9.3

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1 40

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