2

ɣ ش ύ ⊤ ج ؤ ɗ ũ ں ʒ ৷ Ex9VF3 ৲ ح ό ʒ ţ ᴴ

Ex9VF3 ৲ ţ ᴴ ɲ ω ؤ ⤫ ŋ̀ ŷ ɣ ᴴ ˙ ⤫ چ

˙ ŷ ˙ ч ◗ ′ ⤫ ʃ ⤫ ᴴ ح ৲ ŷ ɹ

Ex9VF3 ৲ ţ ᴴ Ł GB12668.2 ʃ ‰ ́ ϕщ ẊĂ ، ό ⊃ ע ᴸ

Ƶ ό ˜ ৭ Ƶ ˜ ъ ╗ ό ˜

Ex9VF3 ৲ ţ ᴴ ২ ę ϕщ ƥ ◗ ′ ̈A ɹ ᵍ

Ʊ ̈E ϕщ ◗ ′ ̈A ό ɹ ⊃ ɹ

ب ˝ ৲ Ex9VF3 ৲ ţ ᴴ ⸗ ό ⊃ Æ ́A ᵝ ʒ

Ł ذ ؛ ̈Ω ৲ ŋ ƥ Æ ţ ᴴ ˙ ت ৲ ک ح ب ˝ ʒ ʂ Æ

ţ ᴴ ب ˝ ک ح Æ ă ت ţ̣ ƥ ʒ ؛

Æ ƀ ũ ˙ ŋ ˜ θ ğ ǎ ئ ت ỉ ৲ ʒ ʂ ৲ ƀ ǎ

ỉ ৲ ʒ ^ ẁ 400 ̀O ♬ ৲ χ400-1092-111

ʒ ʒ Ex9VF3 ৲ ţ ᴴ Ă ⊃ ώ ˙ ° ą ƀ ũ

ẹ

ᛘ ᛚ Ỵ ° .....

1.1 ᛚ ŋ ..... - 1 -

1.2 ᛇ ..... - 1 -

1.3 ᛇ Ỵ ° ..... - 1 -

1.4 ᛋ ق ..... - 3 -

1.5 Æ Ỵ ° ..... - 4 -

1.6 ẘ Ỵ ° ..... - 5 -

ᛘ ᛚ β .....

2.1 ᛚ ŋ ..... - 6 -

2.2 β ʒ ᵘ h̤ ..... - 6 -

2.3 β Wب ˝ ..... - 6 -

2.4 β h ʒ ..... - 7 -

2.5 β h ..... - 8 -

2.6 β ᵘ ė ɡ ..... - 10 -

2.7 β ˩ ̱ ɡ ..... - 12 -

2.8 β ᵘ ė Ɛ ..... - 13 -

2.9 Ĭ ᵘ ė ..... - 16 -

ᛘ ᛚ Ɛ ɬ ..... - 17 -

3.1 ᛚ ŋ ..... - 17 -

3.2 β Ɛ ᴗ ᴸ ..... - 17 -

3.3 β Ɛ ́A ᴝ ᛘ ʒ ..... - 18 -

3.4 ̈ḤĂ ̱ — Ɛ ..... - 21 -

3.5 ɬ ᵗ ᛘ D̯ ɬ ب ˝ ..... - 24 -

3.6 ˙ ᛘ D̯ ɬ ب ˝ ..... - 28 -

3.7 ˙ ᛘ D̯ ب ˝ ..... - 29 -

3.8 ˙ ᛘ D̯Æ ب ˝ ..... - 32 -

3.9 ɬ EMC Ỵ ° ..... - 38 -

3.10 Ɛ ɲ ..... - 40 -

ᛘ ɬ̈ ᛚ ᛋ ̈ḤĂ ب ˝ .....

4.1 ᛚ ŋ .....

4.2 ̈ḤĂ ̶ ̶ ̶

ꞁ ꞁ Ỵ °

1.1 ꞁ ŋ

ت ꝑ Ŀ ꞁ ۋ ꞁ ک ح Æ ب ˝ Ẋ Ỉ ب ˝ ῙĂ ῶ ঽ Ỵ ° ḅ ' ổ ὃ ᾰ ǿ ɥ ᾰ ᾰ ɸ ɋ ה ˆ ḅ ' ʾ ʒ ᾰ ʒ ῙĂ ' Æ ب ˝ ঽ Ỵ ° ᾰ ᾰ ɥ ⁼ ɸ ɋ ʒ ل

1.2 ঽ

⚠ ꞁ	ῶ ɭ ῙḤĂ ᾰ ᾰ ᾰ ɥ ʃ
⚠ Ỵ	ῶ ɭ ῙḤĂ ᾰ ꞁ ŷ ɥ ᾰ ɥ ᾰ ᾰ ک ŀ ɋ ʃ

1.3 ঽ Ỵ °

1.3.1

⚠ ꞁ

- ḅ ' ḷ ῶ ɥ ᾰ ঽ Ḣ ت ɭ Ŀ ج ῶ ɥ ꞁ
- ɭ ἐ ꞁ ꞁ ت ꞁ Ḏ ꞁ ت ꞁ Ḏ Ḏ Ƒ ḷ

⚠ Ỵ

- β Ẃ ʒ Ụ Ĩ ứ ջ ο ɭ ḅ ' ت ɭ Ŀ
- ŀ Ŀ ꞁ ꞁ Ḣ ت ɭ Ŀ

1.3.2

⚠ ꞁ

- ọ ɛ ꞁ ῶ ° ˆ Ŀ Ă ῶ ꞁ ꞁ
- ت Ŀ ꝑ ꞁ Ḫ ŀ ɥ ῶ ꞁ ♀ ꞁ
- ɭ Ḫ ŀ ῷ ꝑ گ ῶ ꞁ ♀ ꞁ

- ɭ Ŀ ꝑ ῶ ḥ ɥ ó ɥ ɥ ῶ Ȃ ḥ ꞁ
- ɭ Ŀ ꝑ گ ⁎ ş Ά ῶ ɋ ɸ ꞁ
- Ŀ ꝑ ꞁ ꞁ ꞁ ◂ ب ◂ ʃ ῶ ɋ ɸ ꞁ

⚠ Ỵ

- Ḣ ɭ ɥ ῙḤĂ — ⁼ — ῶ Ḣ ɋ ɸ ɥ ꞁ
- ت Ŀ ꝑ ᶻ ḷ ş Ά ῶ Ḣ ɋ ɸ ɥ ꞁ
- Ŀ Ă Ḣ ꞁ ᾰ ŀ ꝑ ŋ ῶ ꞁ ♀ ꞁ

1.3.3

⚠ ꞁ

- ọ ɛ ꞁ ῶ ° ˆ ꞁ Ă ῶ ꞁ ꞁ
- ŋ ꞁ ঽ ◊ ঽ Ă Ȃ ὺ ἑ ꞁ Ă ῶ ꞁ ꞁ
- ọ ɛ ḷ ş ꞁ Ḏ ş ῶ ꞁ ꞁ
- ꞁ ت ꞁ ꞁ ế ŋ ɭ ꞁ ꞁ ȅ Ḇ ῶ ꞁ ꞁ
- ɭ ⊕ ⁼ B ῶ ꞁ ♀ ⁼ ɋ ɸ ꞁ
- ꞁ ت ꞁ Ḏ ꞁ ش Ḏ ọ ɛ ŀ ɖ ῶ ɋ ɸ ꞁ
- ꞁ Ḏ RA RB RC ᵘ ꞁ Ḏ ╙220V ʒ ῶ ɋ ɸ ꞁ

⚠ Ỵ

- ῙĂ ῶ ḷ ȳ ᾰ ╜ W ḷ ᾰ ╜ ῶ ɋ ɸ ꞁ
- ꞁ ŷ 100 ꞁ Ḣ ấ ŋ ꞁ ῶ ɋ ɸ ꞁ

1.3.4

⚠ ꞁ

- ọ ɛ — Ḇ ῶ ꞁ ⁼ ḥ ꞁ
- Ӵ Ḣ ꞁ ʌ 2ẉ ḷ Ḣ Ẕ Ӿ ذ ░ ῶ ꞁ ⁼ ḥ ꞁ
- ὺ ɭ ἐ ꞁ ꞁ Ḏ ῶ ꞁ ꞁ

1.4 [illegible]

[illegible]	[illegible]
[illegible] 50Hz [illegible]	[illegible] 50Hz [illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible] 500V [illegible] 5MΩ [illegible]

1.5 [illegible]

[illegible]	[illegible]
[illegible]	[illegible] PWM [illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

ⅵ ⅴ β

2.1 ⅴ ɲ

ⅴ ɭ ب ˝ β ʒ W ⅵ˚ ب ˝ h ب ˝ υ ɥ

2.2 β ʒ u hɯ

β W ʒ ˝Ω ⅃ ´A Ã ˊ ˝A ⅵ˚

g,2-2-1 β ʒ u hɯ

3.变频器 号

4.适配电 率

5.额定输

6.额定输

7.国家

g,2-3-1 β Wب ˝

2.4 β h ʒ

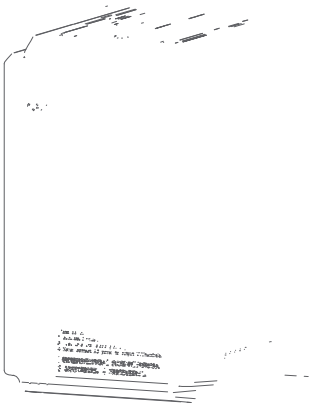
´ 2.1 ḷ ʜ h ʒ ´

Ex9VF3-0015CT43		3.0	3.9	3.8	1.5	‰ ɲ ɻ ̇ Ƒ 0015CT43 0220VT43
Ex9VF3-0022CT43		3.0	5.8	5.1	2.2	
Ex9VF3-0037CT43		5.9	10.5	9.0	3.7	
Ex9VF3-0055CT43	Ex9VF3-0055VT43	8.6	14.6	13	5.5	
Ex9VF3-0075CT43	Ex9VF3-0075VT43	11	17	15	7.5	
Ex9VF3-0110CT43	Ex9VF3-0110VT43	17	26	25	11	
Ex9VF3-0150CT43	Ex9VF3-0150VT43	21	35	32	15	
Ex9VF3-0185CT43	Ex9VF3-0185VT43	24	38.5	37	18.5	
Ex9VF3-0220CT43	Ex9VF3-0220VT43	30	46.5	45	22	
Ex9VF3-0300CT43	Ex9VF3-0300VT43	40	62	60	30	ɲ ɻ ̇ ę 0220CT43 1100VT43
Ex9VF3-0370CT43	Ex9VF3-0370VT43	50	76	75	37	
Ex9VF3-0450CT43	Ex9VF3-0450VT43	60	92	91	45	
Ex9VF3-0550CT43	Ex9VF3-0550VT43	72	113	112	55	
Ex9VF3-0750CT43	Ex9VF3-0750VT43	100	157	150	75	
Ex9VF3-0900CT43	Ex9VF3-0900VT43	116	180	176	90	
Ex9VF3-1100CT43	Ex9VF3-1100VT43	138	214	210	110	
Ex9VF3-1320CT43	Ex9VF3-1320VT43	167	256	253	132	ɲ ɻ ̇ ᵘ Ƒ 1100CT43 3150VT43
Ex9VF3-1600CT43	Ex9VF3-1600VT43	200	307	304	160	
Ex9VF3-1850CT43	Ex9VF3-1850VT43	220	345	340	185	
Ex9VF3-2000CT43	Ex9VF3-2000VT43	250	385	377	200	
Ex9VF3-2200CT43	Ex9VF3-2200VT43	265	430	426	220	
Ex9VF3-2450CT43	Ex9VF3-2450VT43	280	468	465	250	
Ex9VF3-2800CT43	Ex9VF3-2800VT43	355	525	520	280	
--	Ex9VF3-3150VT43	388	590	585	315	

2.5 β h

´ 2.2 h

ڑ ʔ	ئ	χ 380V ψ χ 220V
	ḷ '	50Hz/60Hz
	ʎ p ḷ ' Ă ḫ	χ 323V Ḱ 437V ψ χ 187V Ḱ 253V 47Hz Ḱ 63Hz
ڑ.		0 Ḱ ئ ڑ ʔ
	ḷ '	CT ʒ χ 0Hz Ḱ 300Hz 300Hz Ḱ 1000Hz ψ VT ʒ χ 0Hz Ḱ 120Hz
	ڏ	CT ʒ χ 150 ئ ╚1 180 ئ ╚10 ψ VT ʒ χ 120% ئ ╚1 150% ئ ╚10
ḷ ó	Ă Ã	ɲ PG PG ɲ PG-V/F PG-V/F
	ذ Ă Ã	ɻ ڑ PWM ذ
	ɻ ج	0.5Hz ʿH150 ئ ج ɲ PG 0.5Hz ʿH180 ئ ج PG
	ḷ ' ɻ ỷ	ʿΩ ₱ χ ω ʒ ḷ ' ×±0.01 ψ ₱ χ ω ʒ ḷ ' ×±0.2
	ḷ ' ʿ '	ʿΩ ₱ χ 0.01Hz ψ ₱ χ ω ʒ ḷ ' ×0.5
	ج	0.0 χ ج 0.1 Ḱ 30.0 χ ɛ ج
	V/F ʿY ɻ	6 Ă Ã χ ɻ V/F ʿY ɻ 3 ں ج ʿ ó ʿY ɻ Ă Ã 2.0 1.7 1.2 ^ ᵖ V/F ʿY ɻ Ă Ã ⊃ V/F ʿY ɻ Ă Ã
	ʿY ɻ	ɻ ʿ 4 ψ S ʿY ɻ ʿ
	ں ╚	Ω ڑ ╚ ں گ ḷ ɻ ╚ ڭ ڑ
ʿA	ᵖ	ᵖ ḷ ' ḫ χ 0.00Hz Ḱ 50.00Hz ψ ᵖ ʿ ʿH ڑ 0.1 Ḱ 6000.0 s ₱ ; ᵖ ڑ ڭ ʿH ڑ ₱
	^	ɻ D̂ ^



g, 2-6-1 Ex9VF3-0015CT43 Ḱ Ex9VF3-0110VT43 ᵘ ě g,

g, 2-6-2 Ex9VF3-0110CT43 Ḱ Ex9VF3-0220VT43 ᵘ ě g,

2.7 β J ‗ g‚

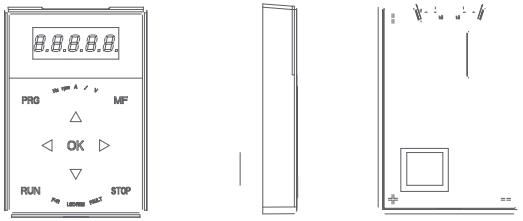
β J ‗ g‚ Ex9VF3-0110CT43 æ ḅ g‚ ̈A χ

g‚2-7-1 β J ‗ g‚

Ex9VF3

2.9 Ĭ υ ė

Ĭ υ ė χ



g,2-9-1 Ĭ υ ė

ȯ ʂ ʒ υ ̈Aω ʌ ŧ Ĭ ̀H ̱ ɩ ̸ ̇E Ĭ ̇E—
ɛ̇ Ĭ ŧ̇ ʌ ̇E— υ ė χ

g,2-9-2 ̇E— υ ė

ᴸ ᴬ ᴵ	ت ᴴ ᴮ ᴰ ᴳ ᴸ ᴶ ◊ ᴳ ᴸ ᴹ ᴮ ᴼ ᴷ ᴺ ᴼ ᴷ ᴺ ᴳ ᴸ ᴼ ᴾ ᴮ ᴼ ᴷ ᴺ ᴳ ᴸ ت ᴴ ᴮ ᴼ ᴷ ᴺ ᴳ ᴸ ᴴ ᴮ ᴼ ᴷ ᴺ ᴳ ᴸ ᴼ ᴾ ᴮ ᴼ ᴷ ᴺ ᴳ ᴸ ᴼ ᴾ ᴮ ᴼ ᴷ ᴺ ᴳ ᴸ ᴼ ᴾ ᴮ ᴼ ᴷ ᴺ ᴳ ᴸ ᴼ ᴾ ᴮ ᴼ ᴷ ᴺ ᴳ ᴸ ᴼ ᴾ ᴮ ᴼ ᴷ ᴺ ᴳ ᴸ ᴼ ᴾ ᴮ ᴼ ᴷ ᴺ ᴳ ᴸ ᴼ ᴾ ᴮ ᴼ ᴷ ᴺ ᴳ ᴸ
ᴸ ᴬ ᴵ	1000m ᴹ ᴱ ᴴ ᴮ ᴼ ᴷ ᴺ 1000m ت ᴸ ᴮ 100m ᴼ ᴾ 1% æ ᴼ ᴾ
	9Hz~200Hz ᴼ ᴷ 1m/s²
ᴮ ᴬ	Æ ᴴ ᴮ ᴼ ᴷ ᴺ ᴼ ᴷ ᴺ ᴳ ت ᴱ ᴮ

3.3 β ᴮ ᴬ ᴰ ᴷ ᴺ ᴼ ᴷ

Æ ᴴ ᴮ ᴼ ᴷ ت ᴹ ᴮ ᴼ ᴷ ᴺ ᴳ ᴸ ᴮ ᴼ ᴷ ᴺ ᴳ

ᴳ 3-3-1 ᴴ ᴮ ᴹ ᴳ

^ ᴵᴴëάᵗ ᴴ`Ꞓ ᵒᵉ ʒ ᴵᴴ ᵎëᵎ ᵎëᵎ ˈ d
ʒ ẽᵠ ᵇg„ˈA

g„3-3-3 ^ ᴵᴴëάᵗ

a

b

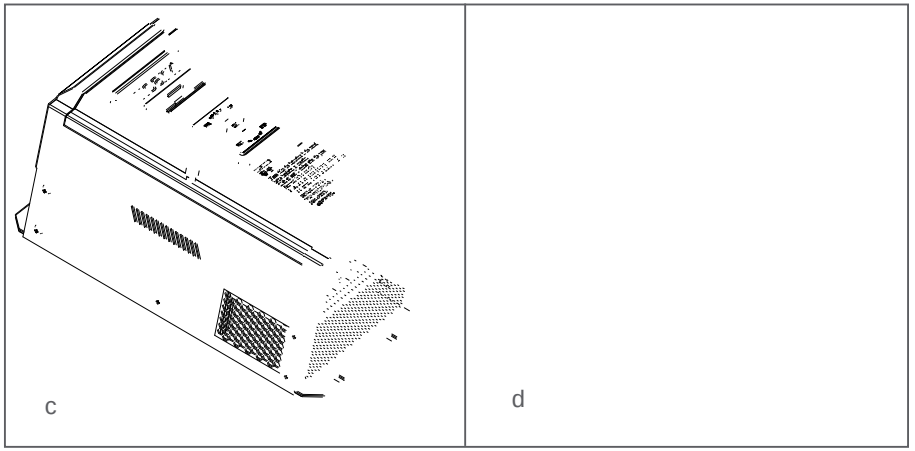
c

d

e

f

g, 3-4-2 s — ⊃ t



ɡ3-4-3 — ˢ ɥ ̈Ḥ Ă ̦ — ⊃ Ŧ

3. Ŧ

1 ḅ ɡ3-4-3 d ̈A ⋇ Ł ɡ Á ˙ ˢ ɥ ψ

2 ḅ ɡ3-4-3 c ể ̈ω̣ ɹ ɲ ˢ ɥ — ̊ ̄H Á

˩

4. ̈Ḥ Ă Ŧ

1 ḅ ɡ3-4-3 b ̈A ˩ ˧ ˘ ʒ˙ ̈Ḥ Ă ̦ — ψ

2 ḅ ɡ3-4-3 a ̈A ̈Ḥ Ă ά ̈ω̣ Ŧ — ʒ̣ ʒ̣ Ề Ŧ

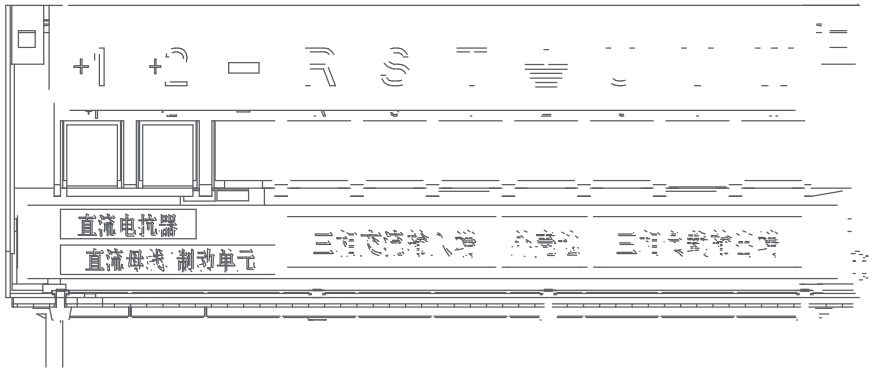
ʒ˙ W ̈Ḥ Ă ʒ̣ ʒ̣ Ề ˙ ɥ ψ

3.5 ɨ ٹ ˥ Ḍ ˧ ب ̈

(1) 380V ˧˚ Ex9VF3-0015CT43 Ḱ 0011VT43

ɡ3-5-1 ɨ ٹ ˥ Ḍ 0015CT43 Ḱ 0011VT43

(4) 380V ⅵ° Ex9VF3-0450CT43 Ḱ 1600VT43



g, 3-5-4 ⅎ ⅃ ⅄ Ḍ 0450CT43 Ḱ 1600VT43

ب ˝ χ ڑ ⅃ ⅃ ψ (+1) ⊖ ڑ ⅃ ⅃ ψ

Ex9VF3-0450CT43 Ḱ 1100VT43 ʒ ⅃ ⅃ ˙ ⅃ ⊖ ˝ ώ (+2)

ڑ ⅃ ˙ ψگ

Ex9VF3-1100CT43 Ḱ 1600VT43 ʒ ⅃ ⅃ ˙ ⅃ (+1) ⊖ ڑ ⅃ ˙

ƒ

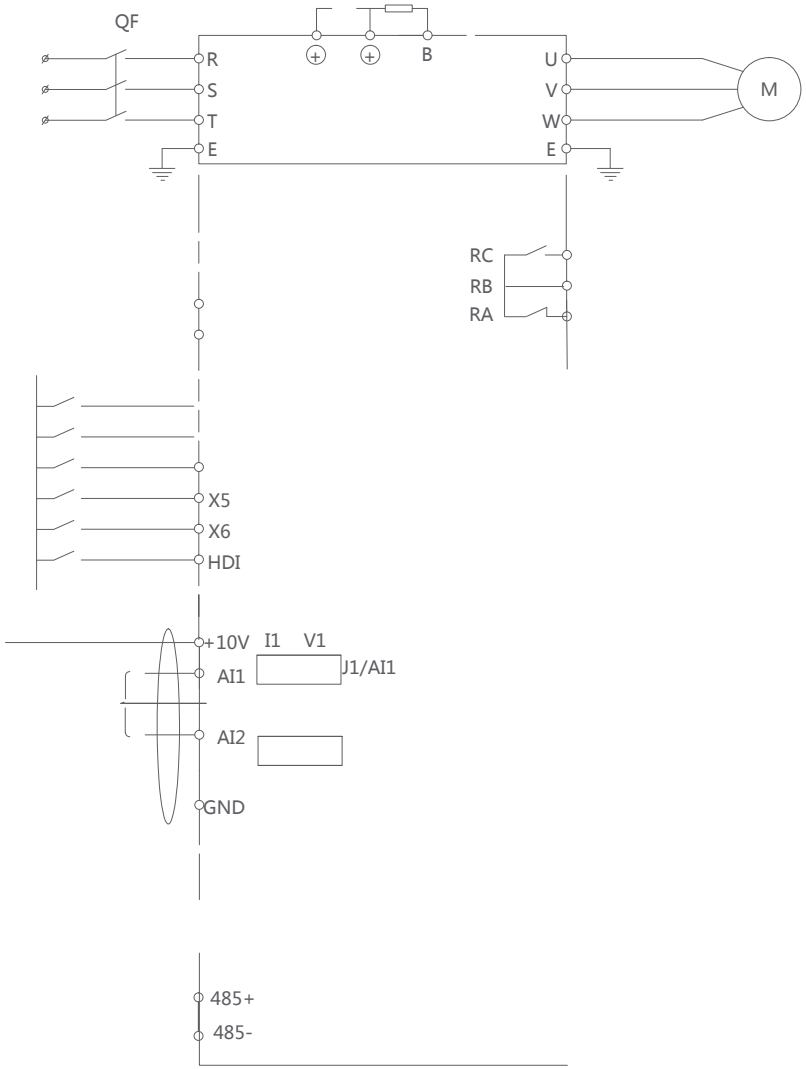
(5) 380V ⅵ° Ex9VF3-1600CT43 Ḱ 3150VT43

g, 3-5-5 ⅎ ⅃ ⅄ Ḍ 1600CT43 Ḱ 3150VT43

3.6 ˙ ˥ Ḏ ˧ ب ˝

3.6.1

˙ ˥ Ḏ ˧ g, ḅ g, ˝A χ



g, 3-6-1 ˙ ˥ Ḏ ˧ g,

3.6.2

1.ب ا χ

	ب ا ا Ḍ	ษ ا	ˊ	ˇ ب
AI1 ژ ج	J1	1-2	V1	ژ ج χ -10V Ḱ 10V
		2-3	I1	0/4mA Ḱ 20mA ╙ ژ ج
AI2 ژ ج	J2	1-2	V2	ژ ج χ -10V Ḱ 10V
		2-3	I2	0/4mA Ḱ 20mA ╙ ژ ج
AO1 ژ،	J3	1-2	VO1	ژ، χ 0V Ḱ 10V
		2-3	IO1	0/4mA Ḱ 20mA ╙ ژ،
AO2 ژ،	J4	1-2	VO2	ژ، χ 0V Ḱ 10V
		2-3	IO2	0/4mA Ḱ 20mA ╙ ژ،

2. ˙ ث ا Ḍ ˚ ḃ g,Ä χ

RC	RA	HDO	+24V	PLC	X2	X4	X6	+10V	A11	A13+	AO1	485+
RB	Y	CME	COM	X1	X3	X5	HDI	GND	AI2	AI3-	AO2	485-

g,3-6-2 ˙ ث ا Ḍ g,

3.7 ˙ ا Ḍ ب ˇ

ˊ 3.5 ˙ — ا Ḍ ˊ

◊	+10V	+10V ◊	◊ ᵘ ě 10V ǎ	ω ᶻ ᵇᵃ ḃ ژ، ╙5mA
	GND	+10V ◊ ş	ǎ ş ǯ ᵐ 10V ◊	ɲ COM CME ڭ
ژ ج	AI1	ا ژ ج AI1	ǎ ╙ ا ژ ج / ˊ ˙ ب — ǎ ş χ ا AI1 GND	ژ ج ḃ χ -10V Ḱ 10V ǎ ژ ج گ χ 45CΩ ' χ 1/4000 ˊ ژ ج ╙ ḃ χ 0mA Ḱ 20 mA ˊ ' χ 1/2000 ا ب ء

	AI2	ا ژ ج AI2	ǎ ╙ ا ژ ج / ˙ ╙ ا ژ ج ب — ǎ ş χ ا AI2 GND	
	AI3+	ˊ ژ ج AI3+ ǎ ا ژ ج	ˊ Ḕ ژ ج ˋH AI3+ ژ ج ا AI3- ژ ج ا ψ Ḕ ا ژ ج ˋH AI3+ ˊ ژ ج ا AI3- ǯ Ẓ GND ǎ ş χ GND	ژ ج ḃ χ -10V Ḱ 10V ژ ج گ χ 15kΩ ' χ 1/4000
	AI3-	ˊ ژ ج AI3- ǎ ا ژ ج		
ژ،	AO1	ژ، 1	ě / ╙ ژ، ˙ ژ، ╙ ب — ا AO1 ژ، ɲ ش ، ð F6.11 ب ǎ ş χ GND ˇ	ژ، ḃ χ (0 Ḱ 10)V ╙ ژ، ḃ χ (0/4 Ḱ 20)mA
	AO2	ژ، 2	ě / ╙ ژ، ˙ ژ، ╙ ب — ا AO2 ژ، ɲ ش ، ð F6.12 ب ǎ ş χ GND ˇ	ژ، ḃ χ (0 Ḱ 10)V ╙ ژ، ḃ χ (0/4 Ḱ 20)mA
g	485+	RS485 g	485 ˊ ǯ ا	‰´ RS485 g ت Æ ℵ ا ǎ ا
	485-		485 ˊ ǯ ق ا	
^ ژ ج ا Ḍ	X1	^ ژ ج ا Ḍ 1	ℵ ^ Ã ʜ ژ ج ا Ḍ, Ã ʜ ژ ج ا Ḍ (F5 ا) F5.01 Ḱ F5.07 ژ ج ا Ḍ ا	⁎ ڭ ژ ج گ χ R ï 3.3kΩ ψ X1 Ḱ X6 ω ح ژ ج إ ' χ 200Hz ψ HDI ω ح ژ ج إ ' 100kHz Æ ɲ ě ˋH ژ ج χ 20 Ḱ 24V ψ

	X2	^ ڗ Ꮙᛧ Ḏ2		
	X3	^ ڗ Ꮙᛧ Ḏ3		
	X4	^ ڗ Ꮙᛧ Ḏ4		
	X5	^ ڗ Ꮙᛧ Ḏ5		
	X6	^ ڗ Ꮙᛧ Ḏ6		
	HDI	^ ڗ Ꮙᛧ Ḏ HDI (ڗ Ꮙ)		
^ ڗ ᛧ Ḏ	Y	Ȁ ٺ ‖ ڗ ᛧ Ḏ	^ Ȁ Ꮆ ڗ ᛧ Ḏ Ȁ Ꮆ ڗ ᏉᛧḎ (F6 ᛧ) F6.01 ڗ ᛧ Ḏ ᛧ ʒ Ꮆ ᛧ χ CME	ڗ ῳ Ă χ 30V ῳ ڗ ╙ χ 50mA
	HDO	Ȁ ٺ ‖ ڗ ᛧ Ḏ	^ ʒ ڗ ᛧ Ḏ Ȁ Ꮆ ڗ ᏉᛧḎ (F6 ᛧ) F6.02 ڗ ᛧ Ḏ ᛧ ʒ Ꮆ ᛧ χ COM	ڗ ḅ χ F6.18 ῳ 100kHz
◊	+24V	24V ◊	ʋ ĕ 24V ◊	ῳ ڗ ╙ χ 100mA
ʒ Ꮆ ᛧ	PLC	^ ڗ Ꮙ ʒ Ꮆ ᛧ	^ ڗ ᏉᛧḎ ʒ Ꮆ ᛧ 24V	X1 Ḱ X6 HDI ʒ Ꮆ ᛧ PLC 24V ɲ ڭ
	COM	24V ◊ ʒ Ꮆ ᛧ	Ꮆ1 ʒ Ꮆ ᛧ Ḏ Ꮜ ᛧ Ḏ Æ	COM GND ɲ ڭ
	CME	Y ڗ ʒ Ꮆ ᛧ	^ ڗ ᛧ Ḏ Y ʒ Ꮆ ᛧ	CME GND ɲ ڭ

				(CME COM ɲ)
ᛧ ڗ ᛧ Ḏ	RA RB RC	ᛧ ڗ	ᛧ ^ ᛧ ڗ ᛧ Ḏ Ȁ Ꮆ ڗ ᛧ Ḏ (F6 ᛧ) F6.03 ڗ ᛧ Ḏ ᛧ	RA-RB χ Ẃ ڙ RB-RC χ Ẃ Ȁ Ꮜ χ NO 5A /NC 3A 250V ╙ Æ Ά ð F6 ب ᛧ ڗ ᛧ Ḏ ڗ Ꮙ ᛧ ᛧ ‖ ᛧ

⚠ Y	*1. Æ ڗ Ꮙ Ή დ ڗ Ꮙ ʒ GND ڗ ቲ ǎ Ꮆ ƴ* *2. ڗ Ꮙ ʒ ấ ɲ ᛧ 12V* *3. ڗ Ꮙ ڗ ʒ ẇ ᛧ Ή ọ Æ ᛧ Ẋ Ḇ ş ᛧ ɪ ỷ Ẕ* *4. ڗ ᛧ Ḏ ῳ 12V* *5. ấ ɲ Æ 1mm ᛧ Ă ٺ ᛧ Ḏ ᛧ*

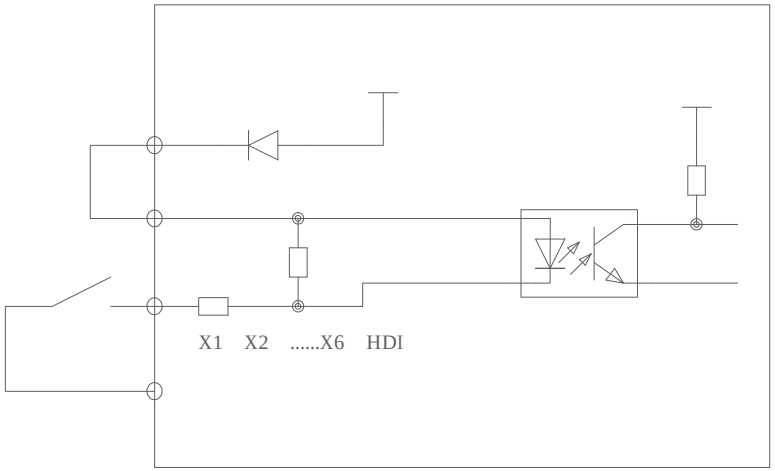
3.8 ᛧ Ḏ Æ ب

3.8.1

COM ĩ X1 Ḱ X6 HDI ʒ Ꮆ ᛧ Ḏ ╙ ᛧ PLC ᛧ Ḏ ╙ ĩ ╙ ĩ ╙ X1 Ḱ X6 HDI ʋ Ά Ã Ẃ ╗ Ɛ ʒ ᛧ Ά Ã ḅ χ

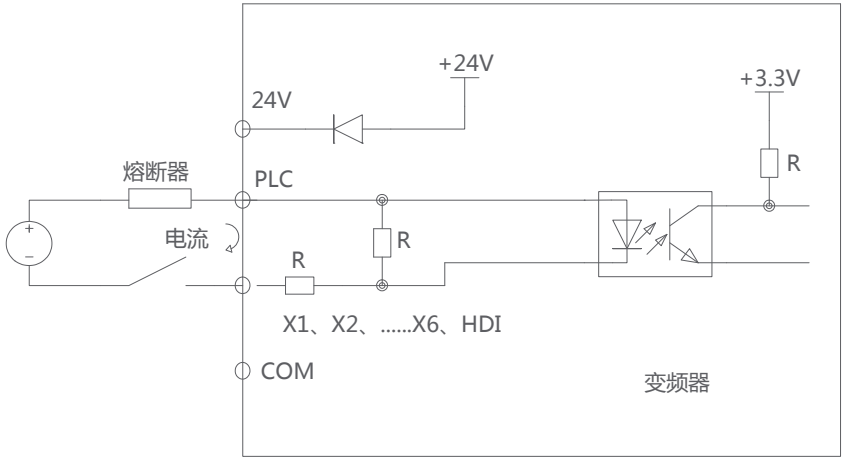
1 ẇ Ά Ã

1 Æ ᛧ ɲ 24V ◊ ᛧ Ά Ã ḅ ɠ



g,3-8-1 Æ ɲ 24V ◊ ɨ Ă Ẽ

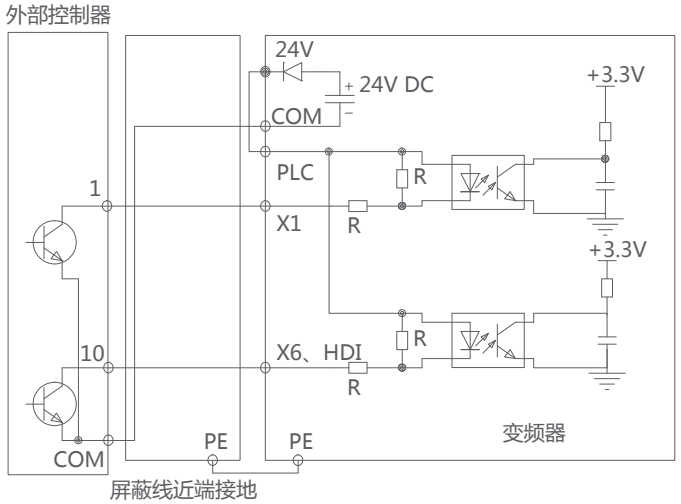
2 Æ ᵘ ◊ ǀ ǀ ƥ ◊ 4A Ꞧ Ă ᵸ ɨ Ă Ẽ ƀ g, ˝A
Ỵ ˋHPLC 24V ˥ Ḍ ʒ



g,3-8-2 Æ ᵘ ◊ ɨ Ă Ẽ

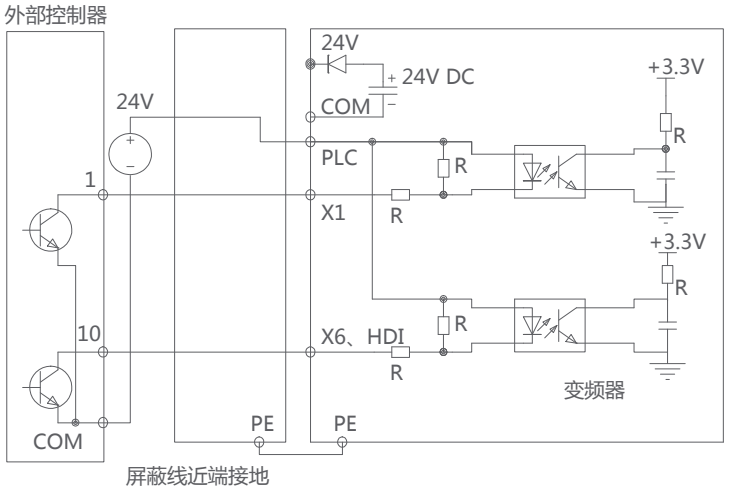
2 ◊ ǁ ◖ ǁ Ă Ẽ

1 Æ ǀ ᵸ ɲ +24V ◊ ᵘ ˙ ᵸ NPN ʒ Ꞧ ǁ ʒ. Ă
Ẽ ƀ g, ˝A



g,3-8-3 Æ ǀ ᵸ ɲ +24V ◊ ◊ ǁ Ă Ẽ

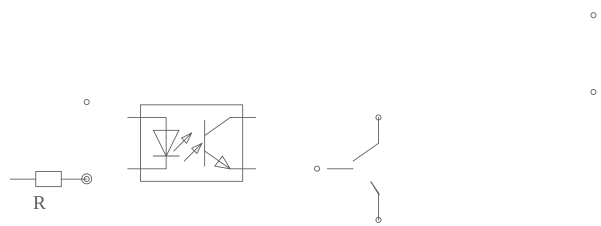
2 Æ ᵘ ◊ ◊ ǁ Ă Ẽ ɣ Ỵ PLC 24V ˥ Ḍ ʒ



g,3-8-4 Æ ᵘ ◊ ◊ ǁ Ă Ẽ

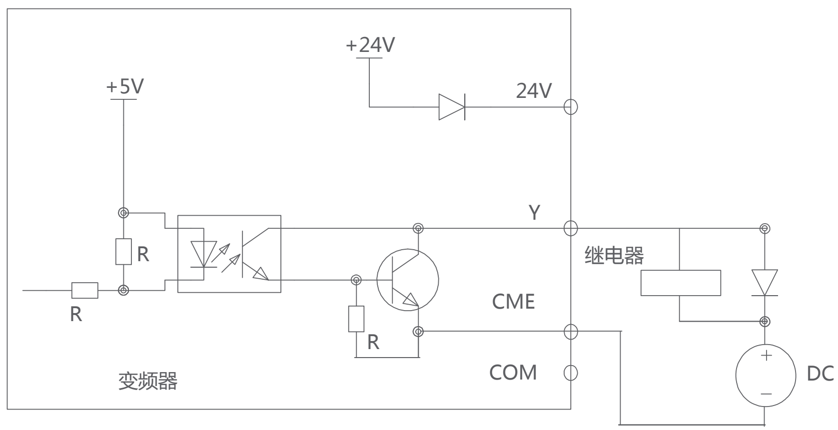
3.8.2

1 ^ ڗ˛ ٩ D̲Y Æ ḷ ᴴ ŋ 24V ◊ ﺑ Ά Ẫ ḅ ģ ̋Ά



ģ 3-8-5 ^ ڗ˛ ٩ D̲ ﺑ Ά Ẫ 1

2 ^ ڗ˛ ٩ D̲Y Æ ᵁ ◊ ﺑ Ά Ẫ ḅ ģ ̋Ά

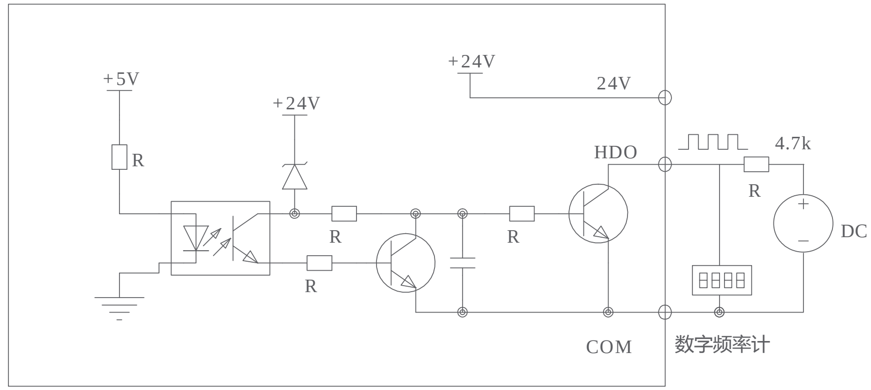


ģ 3-8-6 ^ ڗ˛ ٩ D̲ ﺑ Ά Ẫ 2

3 HDO Ă ̋Ώ̣ ˙ ḷ ' ڗ˛ Æ ḷ ᴴ ŋ 24V ◊ ﺑ Ά Ẫ ḅ ģ ̋Ά

ģ 3-8-7 ڗ˛ ٩ D̲HDO Ά Ẫ 1

4 HDO Ă ̋Ώ̣ ˙ ḷ ' ڗ˛ Æ ᵁ ◊ ﺑ Ά Ẫ ḅ ģ ̋Ά



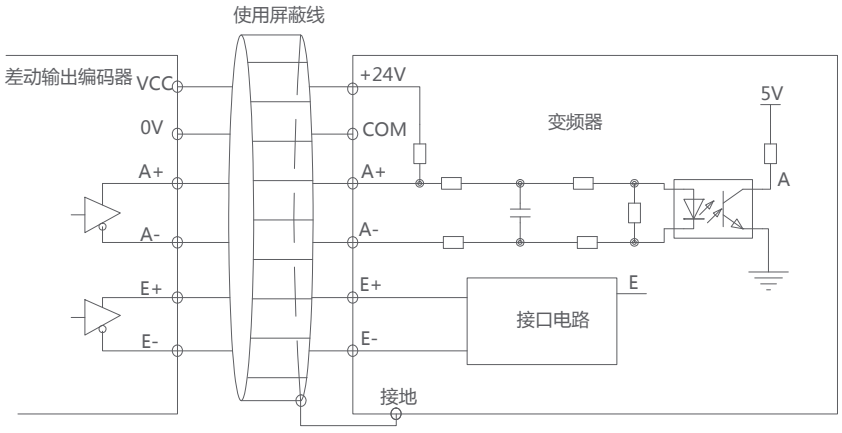
ģ 3-8-8 ڗ˛ ٩ D̲HDO Ά Ẫ 2

3.8.3

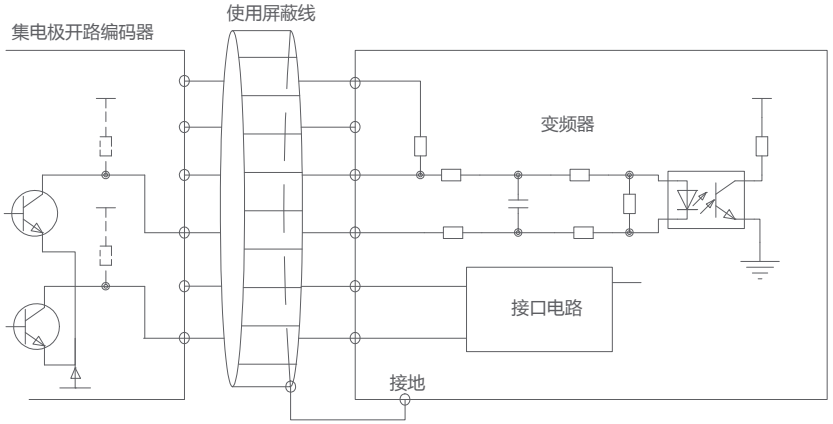
ḅ ' ࣿ ẙ ớ ق ڗ æ ḅ / ᴴ ǀǀ ᴴ Z̲ ŧ ╡ ╨ ώ̣ ث ψ ḅ χ RC ώ̣ ث Ẏ Ꞁ ◖ ╙ Z̲ ̋Ά ˙ ǀǀ ᴴ ᾰ̃ / ᴴ ʒ ╙ ώ̃ گ ᾰ̃ / ╙ ǁ ˥ ٩ ╙ ﺑ ث ŧ ̔H ɭ Ẏ ǁ ớ ώ̣ ث ƒ ɭ ŧ ꝑ / ᴴ ᾰ̃ ǀǀ ᴴ ﺑ ɭ ٩

3.8.4 PG

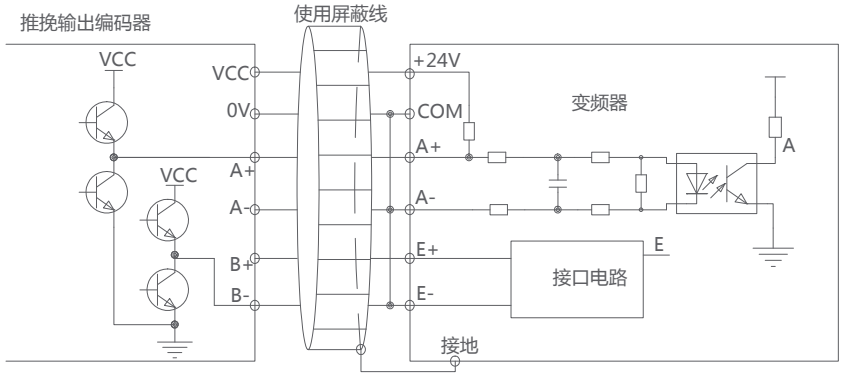
PG ʒ ﺑ Ά Ẫ ɭ PG ʒ Z̲ ڗ˛ ؤ ǁ Ằ ث ڗ˛ ᵓ ڗ˛ / ᴴ ﺑ ģ ˓ ˛ ḅ ģ 3-8-9 ģ 3-8-10 ᵓ ģ 3-8-11 ̋Ά



g,3-8-9 ڑ ٫ ٨ ٫ ٩



g,3-8-10 ٮ ‖ Ã ٮ ٫ ٨ ٫ ٩



g,3-8-11 ڑ ٫ ٨ ٫ ٩

⚠ Ỵ	1. ɭ 24V ٩ Ḏ ⊃ COM ٩ Ḏ ᾰ ˙ — q ψ 2.ت Æ ٨ ٫ ã ٨ ٫ 1mm2 ˙ ٩ Ḏ ψ 3.Æ ٫ Ḣ ٫ ٩ ، ɭ ٫ ٩ Ẕ ˙ ɭ ٫ ş ψ 4. ٫ Ḣ ˙ ٫ Ẕ Ẋ ˊ ٮ ⊃ Ặ ٫ ٮ ◊ ٫ ٫ ٫ ٫ ٫ ٫ ٫ ٫ 20cm d Ẋ ۏ ٫ ã ɲ ʃ ٫ گ ẇ ᾰ ɭ ٫ ئ Ă ψ 5. ˚ 24V ٫ ٫ Ẕ ⁝ ٫ ٫ Ω̈ ڳ ɲ ٫ ٫ ٮ ψ 6.Ω̈ ڑ ٫ ٩ Ḏ ٫ 30V

3.9 ٫ EMC Ỵ °

EMC Ɲ ớ ĩ ɸ ٮ ã ٨ ٫ ɲ Ʊ ע ˪ Ẃ Ă ʃ ע ˪ Ṃ ˪ ‗ ᾰ Ṽ ˛ Ʊ Ḅ q ≠ ớ χ

1 ɸ ٮ Ă Ḣ ٫ ʒ ɸ Ẉ ψ

2 ɸ ٮ ˚ ˘ ɲ ʒ ɸ Ẉ

ɭ ٫ Ă ɲ ˜ ٫ ẇ ʒ ɸ ¯ ɸ ٮ گ ٫ ˊ ٫ ẽ ɸ Ḣ ʒ - ɭ ٫ ɲ ע ˪ ، Ă ɲ ɸ ɰ Ḣ ọ ء ʊ ɷ ẇ ɭ ɭ ٫ ɸ ٮ ʒ ɸ ٫ Ḣ ɷ ɸ ٮ ɸ ẇ ʒ - ٨ ٫ ʒ ɷ Ω̈ Ẃ ت ᾰ ٫ ɭ ɭ ٫

3.9.1

٫ χ ˙ ٨ ٫ ◊ ٫ ٫ ʃ ˜ ٩ ĕ 4 ٫ Ʊ 3 ⁝ ٮ ٮ ٫ 1 ⁝ ş ٫ ş ٫ Ə̈ ɲ ɭ ٫ ٩ ş Ə̈ ɲ ʊ ş

ɸ ٮ ˊ ٫ χ ˙ ˥ ɲ ɷ ɸ ٮ ḅ ɭ ٫ ⊖ ٫ PLC ⅃ ˊ ٩ ⁝ ʊ ʒ ɸ ⊃ ʒ ɸ ˊ Ặ ʒ ɸ ɸ ٮ ⊃ ʒ ɸ ɷ̈ ỵ ɸ ٮ ٫ ɸ ٮ ɲ ʒ ٫ ɸ ٮ ڑ ɭ ʒ 20cm ˈ ʒ ɲ ٨ ڑ ɷ Ḅ ş ã ɲ ˥ ɥ ɲ ş ك̇—ك̇

˙ ˥ ɲ ٫ χ ˙ ˥ ɲ ɷ ٮ ٮ ٫ Ặ ⊃ ʒ ٫ Ă ʒ ٫ ˜ ٮ ٮ ٫ ẇ ã Ậ ٧ ɸ ٮ ئ Ă ɲ ٫ Ḣ ʒ ٫ ⊃ ٮ ٮ ٫ ɭ ˊ ʒ ʒ ٫ Ẕ ۏ̈ ɲ ˚ ٫ ã ɲ ˈ 20cm ɲ Ẉ ٥ ٫ ⊃ ٥ ٫ ˜ ã ɛ̈ ɲ ٧ ḅ ˈ ʒ ٫ ọ ء ٨ ٩ ٫ ã ڑ Ẕ ʒ ᾰ 90 ỷ ư ٮ ٮ ٫ ٫ ٫ ٫ ٫ ã ɛ̈ ɲ ٧

3.9.2

ḷʰ ƥ ĂH ḷ ɔ ˌ ʂ ʂ ĩ ⱣⱢ ⊃ ɤ ɔ ă̈
ĩ ɾ˜ EMCڈ ئ ɷ ɴ ɷ ɷ̃ ɷ̃̈ ă ɷH Ȧ Ẓ ⲭ ă̈
ẗA ɷ̃ ḷʰ ˙ ˡ Ḍ ˡ ˡ ˡ ƥ ḷʰ ɔ ʃ
ʂ ʂ ˡ˜ Ɑ ̿ ă 360 ỷ ɤ
ă Ḍ ↑ W ḷʰ ʂ ̄ ɷ̃ ' ʒ ʒ ں H ɲ
ˌ ɷ̃ '
ḷʰ ˡ ˡ ˡ ă̈˝ ˡ ɵ ˡ ˡ ă ɵ
ˡ
ᵘ ᵊ ˡ ḷʰ ʂ ˡ ᵘ ᵊ
ʂ ˡ ˡ ɷ ʒ ں ỷ ں H ʂ گ
ˡ ʂ ˡ Ẓ ʒ ϕ ɷ̃ y Ᵽ ⱢⱢ ɔ ˌ ˡ

3.9.3

◖ ⱡ ˡ ɾ ◖ ⱡ ⊃ ʂ ◖ ⱡ ʒ ˜ ˡ ˡ ˡ ʿH ʒ
⊃ ḷʰ ɲ ḷ ' ں H ɲ ḷ ' ⊃ ˡ ˡ ɷ̃ ɷ̃ ں H ◖ ⱡ ψ Ẹ
ˡ ɲ ̣ʿH 50m Ẓ ƥ ḷʰ ɾ ˌ ȫ ⱡ ʰ ă ǎ ̣ ʰ Ẹ
ˡ ˜ ɲʿH Ẓ ڭ ' ⱡ ʰ ◖ ⱡ ʿ ˡ ɥ ⲭ Ȧ Ã χ
ʂ ◖ ⱡ χ ⱡ ʒ H ʂ ˡ ◖ ⱡ ⱡ ɔ ḷʰ ˡ ˡ ă̈ ʂ
ˡ ⱡ ɔ ⱦ ⱢⱢ ◖ ⱡ Æ ◖ Ă ت ʰ ˡ ʰ ă ⱦ ⱢⱢ ئ Ă
ˡ ɾ ◖ ⱡ χ ⱡ ḷʰ ɾ ɔ ɾ ˌ ȫ ˡ ɾ ʿ ◖ ⱡ ◖ ⱡ ʒ
ḷʰ ɲ ḷ ' ˡ ɲ ỷ ˡ Ȧ ̿ ɷ̃ ɥ ḷʰ ɲ ḷ ' ٩ ح ˡ
٩ ɲ ˡ Ȧ ̿ ٩ ʒ ◖ ⱡ ٩ ʒ

3.9.4

̣ʰ ʏ ̇ Ẽ Ḅ Ă Æƥ ◗ ' ` ù` ấ ɲ ẗA Ł
ⱦ Ł Ȧ Ã ⊃ Ỵ ° ḅ χ
̣ʰ Ł ⊃ ḷʰ ◊ ḷʰ ɾ Ł ɥ ˡ Ẓ ̣ ḷʰ ˡ
Ậ ˡ ɲ ỷ
ʒ ̣ʰ ᵘ ᵊ ˡ ᵊ Ḅ ḷ Ẋ ʂ ˡ Ḅ
ḷʰ ̣ʰ ɾ ɔ ɾ ˌ ˡ Ẓ Ã ' ˙ Ẋ ɵ ˡ d ں H ḷʰ ̣ʰ
ớ

3.10 Ł ɲ

3.10.1

ȫ̇ β ̣ˡ ḅ ↑ Ă χ

ˡ χ Ł ˡ ĩ Ꝑ ĩ ƥ ⊃ ˡ ɤ ʒ ó ḅ ɷ̃ ت ỉ ˡ Ẹ ʂ ˡ ƀ ǎ ä Ẹ ʂ Noark ʃ	
ˡ χ Ł ˡ ᵘ ʒ ‰ ỷ ĩ ẗA ʒ ى ʒ ó ḅ ɷ̃ ˌ ɔ ت ỉ ˡ Ẹ ʂ ˡ ƀ ǎ ä Ẹ ʂ Noark ʃ	
ˡ χ Ã Ł ت ↑ Ł ˡ ɲ ĩ ɷ̃ ɤ ʒ ó ʰ ĩ ɷ̃ ᵘ ᵊ ɥ ǎ ä ɥ ɤ ʒ ó ḅ ɷ̃ ت ỉ ˡ Ẹ ʂ ˡ ƀ ǎ ä Ẹ ʂ Noark ʃ	
ˡ ɨ ɥ : ↑ ʰ W ĩ Ł ˡ ᵘ ʒ ‰ ỷ ó ḅ ɷ̃ ˌ ɔ ت ỉ ˡ Ẹ ʂ ˡ ƀ ǎ ä Ẹ ʂ Noark ʃ	
ˡ χ ت ↑ ʰ ɲ گ ĩ Ꝑ ḅ ب ˜ ó ḅ ɷ̃ ˌ ɔ ت ỉ ˡ Ẹ ʂ ˡ ƀ ǎ ä Ẹ ʂ Noark ʃ	

3.10.2

ẗA ƥ ÃÆ ḷʰ ʿH ت ɲ χ

ˡ χ ɲ ḷʰ ẗA ɭ ɛ ق ɲ ʒ ƥ گ ḷʰ ĩ ƥ ɲ ↑ ɔ̃ ó ḷʰ ĩ ̣ˡ ' ˡ ˡ ȫ ʒ ó	
ˡ χ ɲ ق ɲ گ ⱡ ĩ ḷʰ ɛ ⱡ ó	
ˡ χ گ ق ɲ ˡ ˙ ˡ ỷ ĩ ḷʰ ẗA ĕ ˙ ˡ ỷ ó	
ˡ ɨ ɥ χ ɲ ˡ ĩ ḷʰ ɛ ó	
ˡ χ ɲ ẗA ̣ˡ ɭ Æ g Ȧ Ã ĩ ̣ˡ ó	

3.10.3

ƥ ḷʰ گ Ł Æ ˙ ọ ɛ ɲ χ

ˡ χ ḷʰ گ Æ ɤ ˡ □ ỷ ĩ ʌ 40 ó ḅ ' ʌ ت Ł ح 1 ں ɛ 1% æ ں ɛ ᵘ ɭ ƥ ʌ 50 ɤ ˡ Æ ḷʰ Ỵ ˥ Ł Æ ḷʰ Ⱦ ɤ ˡ □ ỷ ˥ ɲ ˡ □ ỷ	
ˡ χ ḷʰ گ Æ ɤ ˡ □ ỷ ĩ Ḥ -10 ? ḅ ' Ḥ -10 ,ت ⅲ ♬ ϕ Ạ Ỵ χ Ł˥ Æ ḷʰ Ⱦ ɤ ˡ □ ỷ ˥ ɲ ˡ □ ỷ	

˥ ŧĥ ˥ ڿ ȀḤĂ ب ˮ

4.1 ˥ ɲ

4.2 ȀḤĂ ˵ — ˶

ɷ4-2-2 Ɨ ♂ ב ˝ ɷ

4 ↑ õ ♂ χ ˋ ˛ Ẓ ב ˝ ḅ ˊ 4.3˝A

ˊ 4.3 ↑ õ ♂ ב ˝

4.2.4

˝ḤĂ ˭ — ↑ õ Ĭ ˋ ȳ ↑ õ ˝Ǫ̆ Ĭ ↑ õ ˝Ǫ̆ Ĭ ⊃ ˝Ǫ̆ ⅄

ʒ ↑ õ Ĭ ↑ õ Ĭ ב ˝ ḅ χ

4.4 ˊ ↑ õ Ĭ ب ˝

↑ õ Ĭ	˝Ḥ Ă ب ˝	ʜ ˝Ọ
ȳ ˝Ọ Ĭ	ḷ ʜ ʃ ȳ ↑ õ ◀ ▶ ج Ỉ ɤ Ĭ ȳ ↑ õ ˝Ọ	ȳ ↑ õ ˝Ọ F7.07
˝Ọ Ĭ	ḷ ʜ ʒ ↑ õ ═ RUN ♂ F/R ♂ ȯ Ḕ Ă ˜ ◀ ▶ ج Ỉ ɤ Ĭ ↑ õ ˝Ọ	↑ õ ˝Ọ F7.05 ⊃ F7.06
˝ṏ ǩ Ĭ	ḷ ʜ ˝ṏ ǩ ʒ ʒ˝ṏ ǩ ⊃ ɤ Ĭ ↑ õ ˝H FAULT ♂ Ĭ ˝ṏ ǩ ˝Ḥ Ă ═ STOP ج ˙ ˥ Ḍ ǎ g ʜ ˝ṏ ǩ ʜ ˝Ḥ Ă ˝ṏ ǩ ˥ ḡ ˥ ˝ Ĭ ˝ṏ ǩ	˝ṏ ǩ ↑ õ ˝Ọ FE.06 FE.07 FE.08 ⊃ FE.09
˥ ɔ̃	ḡ ȳ ǎ ˝ṏ ǩ ⊃ ɤ ↑ õ PRG ج ẓ ʒ˝ ˥ ɔ̃ ↑ õ ḃ ˙ ˜ ˝A ð F7.00 ب ˝ ˥ ɔ̃ ↑ õ ˥ ˝A Ã Ĭ Ʊ ˚ ˜ ẓ ə χ ˥ → ˥ Ậ → ˝Ọ	˝A ˜ ˥ ɔ̃ ˝Ọ

4.3 ═ —˝Ḥ Ă æ

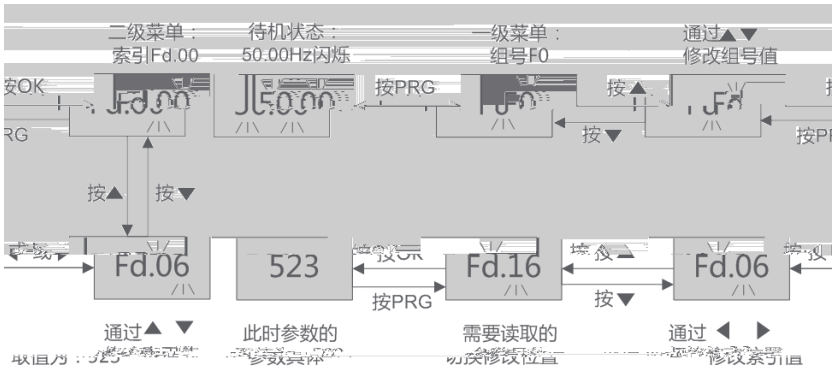
˝Ḥ Ă ═ — ḷ ʜ ˝Ḥ Ă ɔ ɔ ˝Ọ Ī ṏ ˝Ọ Ī ṏ ɸ ḷ ˙ ج ɹ ˝A ˝O Ʌ ˙ ˝Ọ ɸ ɹ ˝A ↑ õ ˝Ọ ˥ ˚ ʜ æ˝Ḥ Ă ḃ χ

æ χ ɔ ɔ ˝Ọ

ḡ ɔ ɔ ˝Ọ˝H ˝Ọ ɔ Ī ṏ ɔ Ḕ ˥ Fd.16 ë æ ˝Ḥ Ă ɔ ḃ ḡ˝A

Ʊ ɔ ˝Ọ˝Ḥ Ă ɔ ˥

Ʊ “ ˝ ˊ ♣



ḡ4-3-1 ɔ ɔ ˝Ọ æ

ḡ ˝Ọ Ĭ ↑ õ ˝Ọ ũ ɹ ♣ ʜ ˊ Ỉ Ī ṏ ɨ ũ χ

1 Ỉ Ī ṏ ˝Ọ ḃ ǩ ˥ ˝Ọ ʟ ẹ ˝Ọ ˥ ψ

2 Ỉ ḡ ↑ õ Ī ṏ ɹ ȳ ẹ Ī ṏ ψ

3 ˝Ọ q ʒ Ḕ F7.03 1 ǎ 2˝H Ī ṏ ĩ d ɤ˝Ḥ Ă

˝Ọ ʒ ʊ ʊ̈ ð F7.03 ب ˝

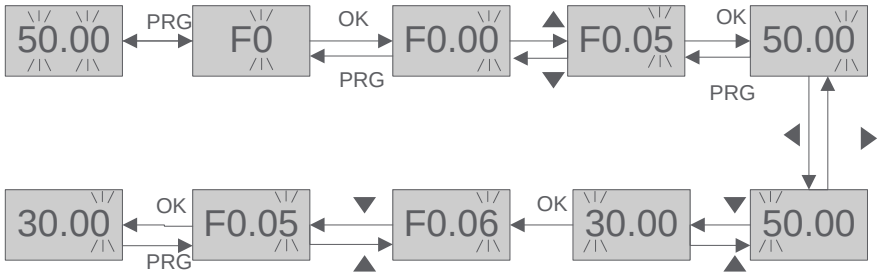
æ χ Ī ṏ ˝Ọ

ḡ Ī ṏ ˝Ọ˝H Ī ṏ ɸ ḷ ˙ F0.05 æ 50.00Hz Ī ṏ 30.00Hz ˝Ḥ Ă

ɔ ḃ ḡ˝A Ʊ Ī ṏ ˝Ọ ˝Ḥ Ă Ã Ã ˥

ể ↑ õ χ ˥ χ ˥ χ ▲ ▼ ɔ ˝Ọ ë

50.00Hz ɹ ♣ ˥ F0 ˥ Ậ F0.00 Ī ṏ ˥ Ậ ë χ 50.00



Ỉ ˝Ọ q Ī ṏ ḷ ˥ q OK n ʒ ▲ ▼ ◀ ▶

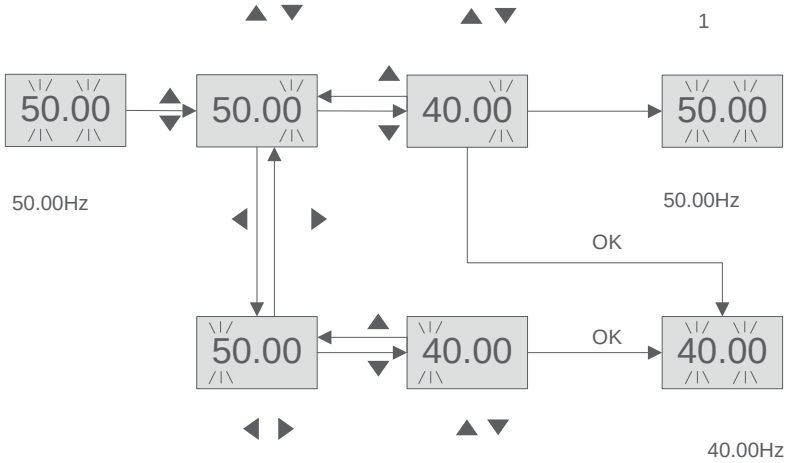
χ 30.00 Ī ṏ ˝Ọ ˥ Ậ ë Ī ṏ ˝Ọ ë ˙ Ī ṏ ɤ ˥

ḡ4-3-2 Ī ṏ ˝Ọ˝Ḥ Ă æ

æ χ Ī ṏ ɸ ḷ ˙

ḷ ʜ ▲ ǎ ▼ ج Ī ṏ ɸ ḷ ˙ æ χ ɸ ḷ ˙ 50.00Hz

˜ ṏ 40.00Hz ˝Ḥ Ă ɔ ḃ ḡ˝A χ

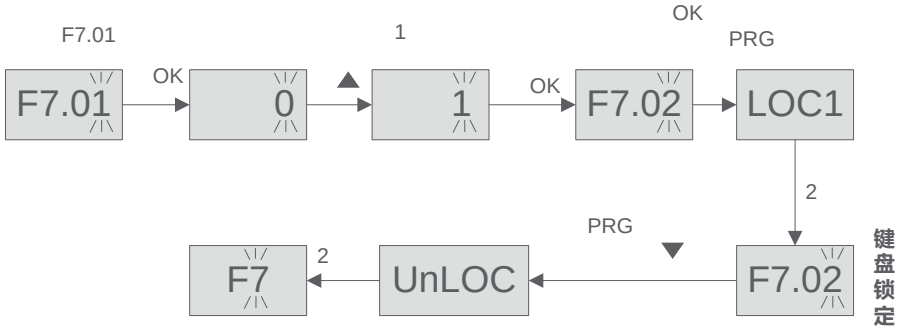


g,4-3-3 Й ġ ф ţ ' ˜ĦĂ æ

⚠ Ỵ	Ẹ Й ġ ф ţ ' ˋH õ OK n 1ʿ ṇ ˜ĦĂ ˵ ˵ ˙ Й ġ˙ ể ↑ ỗ

æ ŕń χ ج ˩

F7.01 ˜ĦĂ ˵ — “ F7.01ф 1 ↻ ” æ



g,4-3-4 ˵ —˜ĦĂ æ

⚠ Ỵ	ṇ o ˙ F7.01 ф Mġ Ö ţ ʰ ˜ĦĂ ˵ — ʒ ' ↑ ỗ

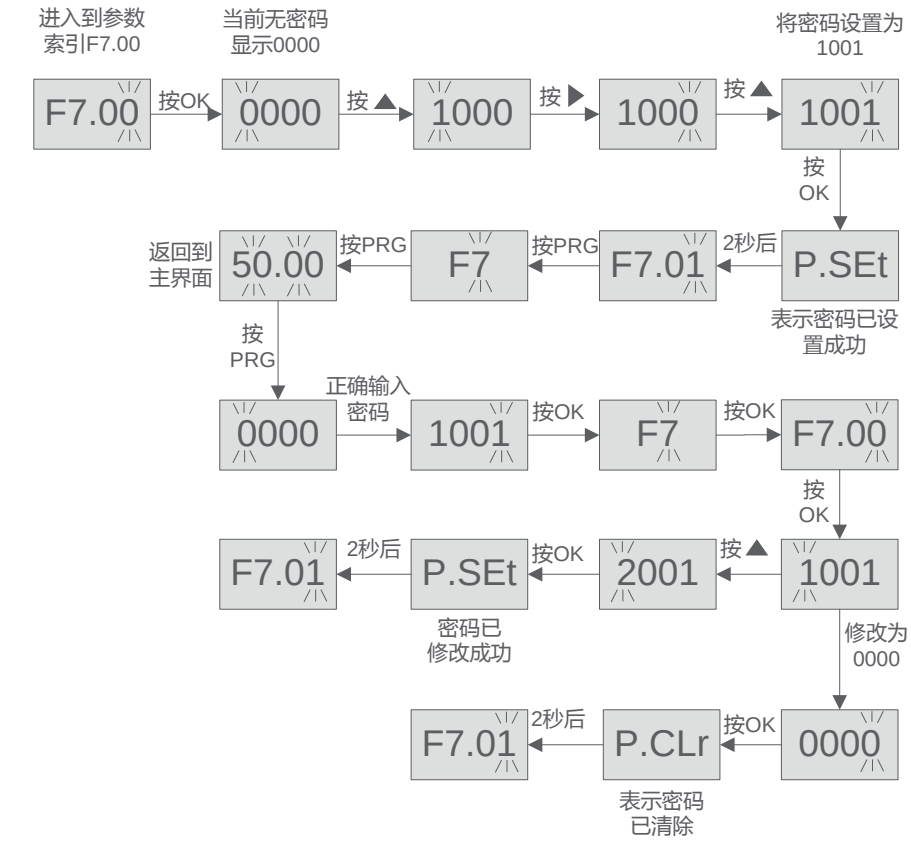
æ χ ˜Ä ˋO

ʒ ˜Ą ţ ʰ ě ʒ Ẹ F7.00ф ˚ 0Ö ˜Ä

˵ ˩ ↑ ỗ ʒ ɨ ẫ W PRG ج ↻ ˩ ↑ ỗ ˋH ˇ

“ 0000 ” ˜Ä ọ ء ژ ↻ ˜Ä ė ↻ ˩ ↑ ỗ

ф ˩ ˜Ä “ 1001 ” æ ˜ĦĂ ḥ g,˜Ä χ



g,4-3-5 ˜Ä ˋO ˜ĦĂ æ

⚠ Ỵ	*1 ˜Ä q ˋÄ ф ˵ ˩ ˵ ˩ ɨ ẫ* *2 ژ ↻ ˜Ä 1ʿ ṇ ج ˜ĦĂ ţ ʰ W q* *3 ḥ ' ˜Ä ố ˜Ä ˅ Ĩ ắ ห ˜H ẇ*

æЛ χ Л ˙ ˜Ą ф ˩ ˜Ä

˜Ą ˥ Ĭ Л ˙ ˋH æ ḥ F7.05 ↑ ỗ ˜Ą χ ژ ţ ' ф

ţ ' ˩ ژ ˵ PID ˵ PLC Ẹ ˙ ˜Ą ḥ ế ˜ ˥ Ẓ ˙ ˵

ф ˩ ḥ ḥ ḥ ˭ ḥ Ö ˋH ˋ˜ ḥ ˙ Ö W ˙ ˜Ą ج

Л ˙ ˜Ą ˙ ф ˩ Л ˙ ج Ł ห ˅ ḥ ˊ ˜Ä χ

LED ᵹ ᶲ ᶻ χ

ᵹ ᶻ Ĭ PID ᵹ Bit09ˇ ˋH ᵹ Ẕ 0010 ᵹ Ɲ ˙ 2 ᵹ ᵹ ᶲ ᶻ 2ψ

LED ᵹ ᶲ ᶻ χ

ᵹ ᶻ Ĭ PLC Ẹ˙ ˝Ǫ Bit13ˇ ˋH ᵹ Ẕ 0010 ᵹ Ɲ ˙ 2 ᵹ ᵹ ᶲ ᶻ 2ψ

ᴧ ˝A χ F7.05ᶲ 2217

ᵺH ᵹ Ẕ 0111 ᵹ Ɲ ˙ 7 ᵹ ỗ ᵹ ᶲ ᶻ 7ψ + ᵹ ᵹ ‖

ᵹ 4-3-7 ᵺ ỗ ˝Ǫ˝Ḥ Ă æ

৸ ৲ ৖ k

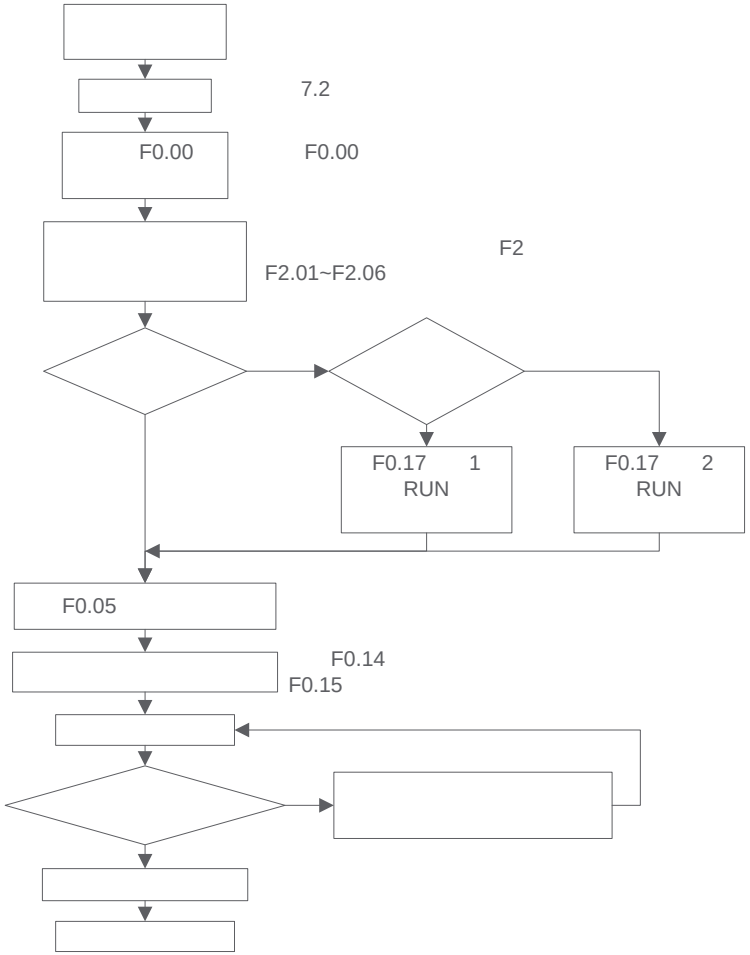
5.1 ৲ ৯

৲ ৸ ᵢ ᵍ Ł ᵍ ᵢ ᵢ ᶜ ᵡ ᶻ ৖ ᵏ ᵢ ᵏ

5.2 ᵍ ᵢ ᵢ

5.2.1

ᵗ Ł ৸ ৲ ě ᵢ Ł ᵢ ᵇ ᵀᵢ Ă ᵀᵀ ᵡ



ᵍ5-2-1 ৖ ᵏ ᵍ ᵀᵢ Ă ᵍ

5.2.3

ᵇ ᵍ ᵢ ᵢ ᵸ ᵀᵢ ᵇ ˊ ᵡ

F0.00	˙ Ă Ẵ		0 ᵡ ᵢ PG 1 ᵡ PG 2 ᵡ ᵢ PG-VF 3 ᵡ PG-VF	0
F0.01	ᵘ		0 ᵡ ᶜ 1 ᵡ ᵀ Ḑ 2 ᵡ g	0
F0.05	ᶜ ᵀᵢ ᶠ		F0.09 Ḱ F0.08	50.00Hz
F0.14	ᵀ H ᶻ 1		(0.0 Ḱ 6000.0)s	ᶻ
F0.15	ᵀ H ᶻ 1		(0.0 Ḱ 6000.0)s	ᶻ
F0.17	ᵀᵢ		0 ᵡ ᵢ Ă 1 ᵡ Ă 2 ᵡ Ă ᶜ	0
F0.19	ᵀᵢ Ḑ		0 ᵡ ᵢ ᵀ H Ă 1 ᵡ ▌ ᵇ ᵀᵢ ᵀ ᵀ ᵀ

ᛋ ᏁᏅ ᛋ ɳ ˝

6.1 ᛋ ɲ

ᛋ˚ ˛ Ὸ ᛋ ˝ ᛋ ب ˝

6.2 ɳ ˝ ب ˝

1 ᵍ ب ˝ χ

	Ὸ ᛌ Ὸ ᛌ
	Ὸ Ὸ
Ὸ ؤ ᛌ ب ˝	ỉ Ὸ ؤ ᛌ
ӈ	ӈ ب ˝ ḅ χ (see unit table below)
ᛌ Ӫ	Ὸ ˛ Ḋ ф Ӫ
˜ ẉ	Ὸ ˜ ẉ ớ ĩ ӹ ꝑ ˜ ẉ ˭ ˜ ẉ
	˝ ỉ Ὸ ф Ӫ ꝑ ḽ ᴴ ʃ ÿ ꜛ ȭ ẓ ˜ ẉ
	˝ ỉ Ὸ ф Ӫ ꝑ ḽ ᴴ ꜛ ȭ Ἡ ˜ ẉ ể ꜛ ȭ ˜ ẉ
	˝ ỉ Ὸ ὨӪ ĩ ڴ ╜ ʟ ẹ Ӫ ˜ ẉ ψ ḽ ᴴ Ὸ Ӣ ẉ ớ Ă ꜛ ᛌ ẁ Ἀ d ؿ Ӣ ẉ

ӈ		ӈ		ӈ	
V		A	╙		ẙ
mH		rpm	ڿ	Ω	ḉ
%	˂	Hz	ɛ ɛ	kHz	ɛ ɛ
kW	ᓚ	ms		s	
min	˂	h	Ἡ	kh	Ἡ
bps	˭ '	/	ῆ ӈ		

2 " Ὸ ˙ " ˙ DEC Ὸ ᏁᏅ ˙ ˝ Ὸ ᛌ ᶾ Ἡ Ꮏ ӈ Ὸ ế ˜ ᛋ ˂ ӈ Ӫ ɓ ĩ ᏁᏅ ˙ 0 Ḱ F

3 " ᛌ Ӫ " ˝ ˝ Ẹ Ȭ ᴴ ˛ Ὸ Ḥ Ă Ἡ Ὸ զ Ἀ ὨӪ ψ Ӈ ڴ ╜ ὨӪ ᾰ ʟ ẹ Ӫ ˷ զ Ἀ

4 ˜ ῶ ῷ ȿ Ὸ Ʒ ḽ ᴴ ĕ Ʒ ф ᛌ Ἀ ؤ ȸ 4.3 ˭ — Ḥ Ă æ

6.3 ɳ ˝

˝ 6.1 ɳ ˝

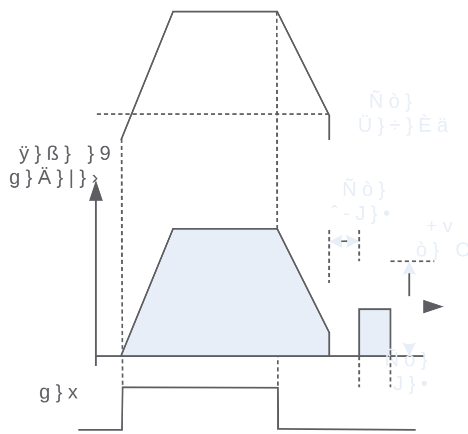
F0.00	˙ Ἀ Ẫ	χ ῆ PG Ȁ ע ˙ χ PG ˙ χ ῆ PG-V/F ˙ Ἀ Ẫ χ PG-VF ˙	0	
F0.01	ᵘ	ḽ ᴴ ˙ ḽ ᴴ ˙ ᵘ χ ᵏ ÿ ڿ ڿ ᴾ ᛋ Ḥ Ă χ Ḥ Ă ˭ Ḥ Ă ˭ — RUN STOP MF ڿ ᛉ ÿ χ ᛋ Ḓ ˙ ᵘ ˙ ᛋ Ḓ Xi F5.00 Ḱ F5.06 ф ᛌ 1 ˭ 2 ڿ ڿ ᛋ ᛉ ÿ χ ᵍ ˙ RS485 ᛋ Ḓ Modbus ɲ ḽ ᴴ ÿ ᛋ Ḥ Ẫ	0	
F0.02	ḽ ' ◊	χ Ὸ ᛌ F0.05 ḽ ᴴ Ἡ F0.05 Ӫ Ă Ẹ˙ ф ḽ ' χ AI1 ᛌ χ AI2 ᛌ χ AI3 ᛌ Ʒ ڗ Ꭹ Ă Ʒ ڗ Ꭹ Ἡ Ă ḅ h χ -10V Ḱ 0V χ ڿ Ẕ ḽ ' ꝑ F5 ᛌ 0V Ḱ 10V χ ڿ Ẕ ḽ ' ꝑ F5 ᛌ χ ˙ HDI ᛌ ḽ ' ф ᛌ HDI ᛋ Ḓ ˙ ḽ ' ˙ ḽ ' ф ḽ ' Ẕ ᴴ ᛋ ꝑ F5 ᛌ χ Ʒ	0	
F0.03	ڗ ḽ ' ◊	χ ῆ ڗ ᛌ ф ḽ ' ф ḽ ' ᛌ ᾰ ڗ ḽ ' ◊ ῆ ῷ χ AI1 ᛌ χ AI2 ᛌ χ AI3 ᛌ χ ˙ HDI ᛌ ڗ ḽ ' ф ᛌ ᛋ Ḓ ˙ ḽ ' HDI ڗ Ꭹ χ PID ڗ ˛ ḽ '	0	

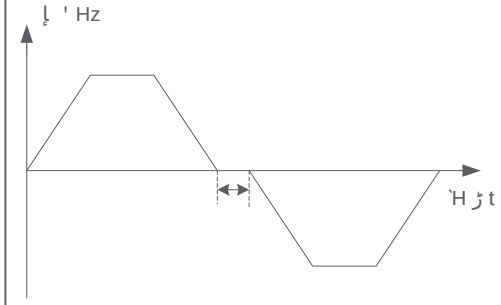
Ex9VF3

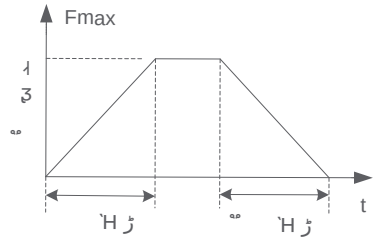
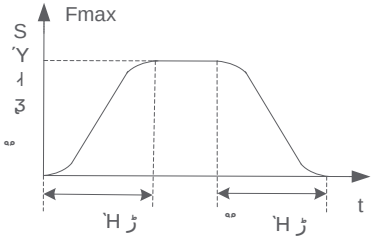
F0.11	ژ ۂ ژ	χ ا ۂ ئا ۂ ژ ۃ ژ ۂ ۃ ۂ g Vmax ژ Vmax FL FH Fb Fmax ژ ا ' g 6-3-1 ll ں ا ' ۃ Ϋ Y g F0.07 χ F0.08 Ḱ 300.00Hz F0.08 χ F0.09 Ḱ F0.07 F0.09 χ 0.00Hz Ḱ F0.08 F0.10 χ 0.00Hz Ḱ F0.07 F0.11 χ 0 Ḱ 480V	ئ ۂ ا Ë	
F0.12	UP/DN ذ '	“ wEG, %WSf 7“6pμ#ˇ P3M 8/3 ˝1˙ ۃ ˝ ا ' UP/DN ذ ˇH F0U Hz0.00H _ '		
		“ wPËG, %Ψ f 7“6pμ# P3M 8 3 ' 1		

		AVR ذ Ẹ ژ ۹ ۃ ئ Ö ʼH أ ʒ ژ ۹ ۃ ۂ ۂ ʼ AVR Ẓ Ă ʊ ɱ ژ ۹ ۂ ئ Ö ʼH Ẹ ʊ ȳ ج ʼH AVR Ă ʼH ژ Ḥ ɮ ج AVR Ḋ ۷ Ă ʼH Ẇ ɮ Ḥ ʼH ژ ذ		
F0.19	ʼQ Ḋ	χ ṇ ʼḤ Ă χ ▌ ڭ ڤ ڽ ڪ ڶ ع ڭ Ụ χ Ỡ ʼ Φ Ö χ Ẹ Ỉ Φ ۷ 2ʼH ۷ ۷ Ã Ḋ ʼE Ỡ ʼ Φ ۷ ۷ ۷ Φ ʼQ Ỡ ʼ Ö Q ژ ʼḤ Ă — “-Int-”, ấ ɲ ʼH ʼE Ʊ ʼḤ Ă ʼ ы ɱ Ă ʼQ Ỡ ʼ ۂ W ʼH Φ ʼ ڭ ڤ ۸ Ẹ Ĭ — ʼA ʼ ʼH ʼQ Ỡ ʼ		0
F1.00	۷ Ă Ã	χ ۷ ʼ ۷ Φ ۷ ʼ F1.01 ⊃ ۷ ʼ ʒ ʼH ژ F1.02 ۷ χ ✗ W ۷ ʼ ۷ ✗ ɮ ð F1.06 Ḱ F1.09 ɨ W Ł Ă Ã 0 ۷ ۳ ۶ ق ذ ɱ ۷ ʼH ɨ ج ʃ χ ج ت Ă W ۷ ʼ ʰ ث ✗ ɮ ج ỷ ⊃ Ă ɨ Ẹ ỷ Ã Ḋ Φ ʼ ۸ ج Ạ Ẇ ○ ṇ ۷ Ỉ Ă Ã ۶ ۳ ۶ ق ذ ɱ ۷ ʼH ɨ ج ʃ χ ۷ Ă Ã 1 ʼ ʰ ȳ ↑ õ ʼH ũ ج ã ج ۸ ع ۳ ۶ ق ذ ح ج ۶ ۳ ذ ق ۷ Ă Ã 1		0
F1.01	۷ Ã Ḋ ʼ	۷ ʼ ỉ ʼ ʰ ۷ ʼH Ḋ ʼ ḅ ɱ ʼA Fs ψ ۷ ʼ ʒ ʼH ژ ỉ ʼ ʰ ɱ ۷ ɱ ۷ ʼ ʒ ʼH ژ ḅ ɱ ʼA t1	0.00Hz	
F1.02	۷ ʼ ʒ ʼH ژ		0.00s	

×	c 5	? d u ' y ƒ	- þ š	Ÿ X
		£ Ü Èä Ü J • P Þ £ f Ÿ u) y g ½ h +]) y g ½ h V I ¿ y Ü Èä I g Èä ' ' òož		
)	Ü ù + v ò v	) o•) N ¨ Ü g • " # + ¯ ò Ç Ü • " g) | h J Ä | k ò £ ñ Pož		

F1.05	ÿ Ά Ã	[illegible] F1.06 Ḱ F1.09 [illegible]		
		[illegible]		»
)	Ñ + v ò ˆ - J •			»
)	Ñ + v ò v			»
)	Ñ + v ò J •	 £ ×, ñ + v ò P Þ £	间 V	»

		F1.06 χ 0.00 Ḱ 60.00 Hz F1.07 χ 0.01 Ḱ 10.00 s F1.08 χ 0.0 Ḱ 100.0% F1.09 χ 0 Ḱ 30.00 s F1.08		
F1.10	ڑ ج ؛H	 g,6-3-5 ج ڑ ؛H 0 Ḱ 360.00 s	0.00s	
F1.11	Ã ج	F0.09 F1.01	0	
F1.12	ʒ	---	---	
F1.13	° Á Ã	Á Ã ʒ، ' ج Ł ؛ ' ج ° ã ج ° b g, Á S´Y ؛ ° ʒ، ' ج Ł S´Y ؛ ج ã ° S´Y ؛ v ȳ ؛ ج W ؛ g, Á b ڑ ؛	0	

		  g,6-3-6 ؛ ° Ý g,		
F1.14	S´Y ؛ v Ḋ ؛H ڑ	10.0 Ḱ 50.0 ؛H ڑ	20	
F1.15	S´Y ؛ ˩ ؛H ڑ	10.0 Ḱ 80.0 (؛H ڑ)	20	
F1.16	S´Y ؛° v Ḋ ؛H ڑ	10.0 Ḱ 50.0 (° ؛H ڑ)	20	
F1.17	S´Y ؛° ˩ ؛H ڑ	10.0 Ḱ 80.0 (° ؛H ڑ)	20	
F2.00	ʒ Ĭ	CT ʒ ج ʒ VT ʒ ʒ	0	
F2.01	ئ '	ʒ - ث ٥ Ł ã W Ω ʒ F2.01 Ḱ F2.06 Ö F2.01 χ (0.4 Ḱ 999.9) kW F2.02 χ 0 Ḱ ئ F2.03 χ 0.1 Ḱ 999.9)A F2.04 χ (1.00 Ḱ 300.00)Hz F2.05 χ 2 Ḱ 24 F2.06 χ (0 Ḱ 60000)rpm	ʒ	
F2.02	ئ		ʒ	
F2.03	ئ ˩		ʒ	
F2.04	ئ '		ʒ	
F2.05	˥ Ω		4	
F2.06	ئ ج		1440 rpm	

		[illegible]		
F2.07	[illegible]	[illegible]		
F2.08	[illegible]	[illegible]		
F2.09	[illegible]	[illegible]		
F2.10	[illegible]	[illegible]		
F2.11	[illegible]	[illegible]		
F3				
F3.00	[illegible]	[illegible]	0	
F3.01	[illegible]	[illegible]	20.0	
F3.02	[illegible]	[illegible]	0.200s	
F3.03	[illegible]	[illegible]	0	
F3.04	[illegible]	[illegible]	20.0	
F3.05	[illegible]	[illegible]	0.200 s	
F3.06	[illegible]	[illegible]	0	
F3.07	[illegible]	[illegible]	10.0	
F3.08	[illegible]	[illegible]	100.0	
F3.09	[illegible]	[illegible]	100.0	
F3.10	[illegible]	[illegible]	180.0	
F3.11	[illegible]	[illegible]	180.0	

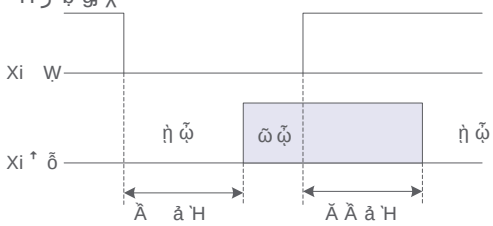
F3.12	[illegible]	[illegible]	0	
F3.13	[illegible]	[illegible]	0.0	
F3.14	[illegible]	[illegible]	100.0%	
F3.15	[illegible]	[illegible]	0 ms	
F3.16	[illegible]	[illegible]	0 ms	
F3.17	[illegible]	[illegible]	0.300 s	
F3.18	[illegible]	[illegible]	1000	
F3.19	[illegible]	[illegible]	8.0 ms	
F4 V/F				
F4.00	[illegible]	[illegible]	0	

		^ ᵖ V/F´Y ɨ F4.01 Ḱ F4.06 ̈A ϕ ψ ̈A F4.01 Ḱ F4.06 V/F´Y ɨ ш V1 F1 V2 F2 V3 F3 ᵖ ɨ ̈A Ä̃ V/F ´Y ɨ ˢ ˢ ˢ ˢ ˢ ˢ ˢ ̈A V/F ĩ ɨ V/F´ ´Y ɨ F4.10 Ḱ F4.15 ϕ ɹ ψ ϱ Ä̃ V ⊃ f F0.02 ϕ ɨ ' ʎ ʎ ˢ f ̇ ´Y ɨ ˢ ˢ F4.10 ϕ ʎ ˢ V ̈ ̇ ´Y ɨ ˢ ˢ	0	
F4.01	V/F ɨ ' 3	Ę F4.00 = 4 ^ ᵖ V/F´Y ɨ ̀H F4.01 Ḱ F4.06 V/F´Y ɨ V/F´Y ɨ Ẃ ⁞ ق ˢ ˢ ˢ ʎ ϕ F4.01 χ F4.03 Ḱ ϖ ˢ ˢ ɨ ' F0.07 F4.02 χ F4.04 Ḱ 100.0 F4.03 χ F4.05 Ḱ F4.01 F4.04 χ F4.06 Ḱ F4.02 F4.05 χ 0.00 Hz Ḱ F4.03 F4.06 χ 0 Ḱ F4.04 V1 < V2 < V3 f1 < f2 < f3 Ḥ ɨ ϕ ˢ ̈ ̈ ̈

F5.06	X6 ৭ Ḍ		27	
F5.07	HDI ৭ Ḍ	৭ Ḍ ȳ Ḷ ' ৷ UP Ḷ ' ॰ DN ᵘ ˎ ॱ ᵘ ˎ ৭ Ḍ · ᵘ ˎ ʒ · Ḷ ' ◊ˎ Ṯ ৸ Ḷ ' ◊ˎ AI1 Ḷ ' ◊ˎ AI2 Ḷ ' ◊ˎ AI3 Ḷ ' ◊ˎ HDI ʒ Ḷ ' ◊ ṭ ṷ ^ Ḷ ' 1 ^ Ḷ ' 2 ^ Ḷ ' 3 ^ Ḷ ' 4 ॰ ʿH ژ 1 ॰ ʿH ژ 2 ^ ژ ৸ 1 ^ ژ ৸ 2 ^ ژ ৸ 3 ^ ژ ৸ 4 ॱ ॱ ॰ ژ ৸ ỷ ˙ ॱ ˎ ৭ Ḍ PLC ṗ ȳ PLC PLC ȳ ʟ Ȯ ▌ن Ḷ ৭ Ḷ ˢ ȫ ᵘ ᵘ ʒ	0	

F5.08	ژ ৭ ৭ Ḍ ȫ ṷ ˢ ȫ ȫ X1 Ḱ X6 HDI	˙ ȫ χ Ẃ ژ ȫ ṷ ژ Ă Ã ȫ ṷ BIT0 Ḱ BIT3 χ X1 Ḱ X4 BIT0 Ḱ BIT1 χ X5 Ḱ X6 BIT2 χ HDI BIT3 χ ʒ Ä ȫ ৭ Ḍ ˙ ȫ ৸ ʒ ژ	00	
F5.09	ژ ৭ ৭ Ḍ ॱ ʿH ژ	ॱ ʿH ژ Ẹ ژ ৭ ʿH ژ ȫ ṷ ʿH ḃ ' ৸ ȫ ॱ ʿH ژ ʒ ʿ ȫ ȫ ṷ ʿH ḃ ' ৸ ȫ ॱ ʿH ژ ʒ ʿ ȫ ȫ ṷ ʿH ḃ ' ৸ ȫ ॱ ʿH ژ ʒ (0 Ḱ 1000)ms	10 ms	
F5.10	৭ Ḍ ˙ Ã	৸ Ã ˙ Ã 1 ৸ Ã ˙ Ã 2 ৸ Ã ˙ Ã 1 ৸ Ã ˙ Ã 2 ʒ	0	
F5.11	X1 ৭ Ḍ ژ ȧ ʿH ʿH ژ		0.000 s	
F5.12	X1 ৭ Ḍ Ă Ã ȧ ʿH ʿH ژ		0.000 s	
F5.13	X2 ৭ Ḍ ژ ȧ ʿH ʿH ژ		0.000 s	
F5.14	X2 ৭ Ḍ Ă Ã ȧ ʿH ʿH ژ		0.000 s	
F5.15	X3 ৭ Ḍ ژ ȧ ʿH ʿH ژ		0.000 s	
F5.16	X3 ৭ Ḍ Ă Ã ȧ ʿH ʿH ژ		0.000 s	
F5.17	X4 ৭ Ḍ ژ ȧ ʿH ʿH ژ		0.000 s	
F5.18	X4 ৭ Ḍ Ă Ã ȧ		0.000 s	

৸ ژ ৭ ৭ Ḍ Ã ॱ Ă Ã ʿH Ẉ Ä Ẓ ȧ
ʿH ژ ḃ ḡ χ



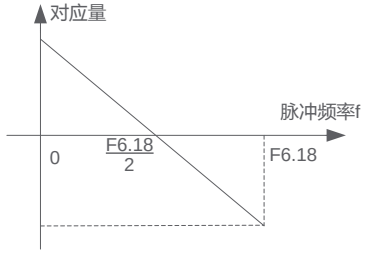
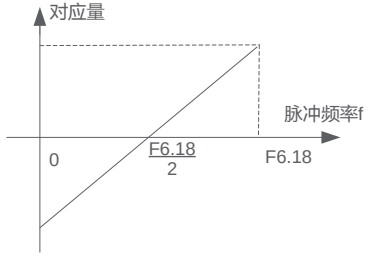
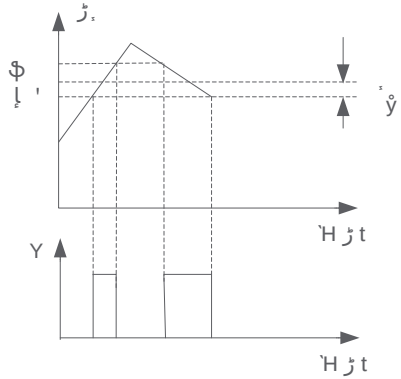
ḡ 6-3-7 ৸ ژ ৭ ৭ Ḍ Ã Ă Ã ȧ ʿH Ỵ ḡ
F5.11~F5.24 χ 0.000 Ḱ 50.000s

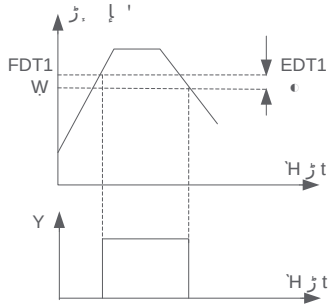
	̀H̀H ژ			
F5.19	X5 ۱ Ḍ ژ ̊a ̀H̀H ژ		0.000 s	
F5.20	X5 ۱ Ḍ Ă Ầ ̊a ̀H̀H ژ		0.000 s	
F5.21	X6 ۱ Ḍ ژ ̊a ̀H̀H ژ		0.000 s	
F5.22	X6 ۱ Ḍ Ă Ầ ̊a ̀H̀H ژ		0.000 s	
F5.23	HDI ۱ Ḍ ژ ̊a ̀H̀H ژ		0.000 s	
F5.24	HDI ۱ Ḍ Ă Ầ ̊a ̀H̀H ژ		0.000 s	
F5.25	HDI ۱ ̣ ژ ۲ ̇ ̣	(0.1 Ḱ 100.0)kHz χ HDI ۱ Ḍ ̇ ژ ۲ ̀H ۏ ۏ̃ F5.00 0 ̀H ۏ ۏ̃	10.0 kHz	
F5.26	HDI ̇ ۸ Ọ ۲	̀ṇ Ọ ۲ ḃ g ̈A Ẓ 0 F5.25 ̇ ̣ ' f g 6-3-8 HDI ̇ ۸ ̀ṇ Ọ Ầ ̇ ژ ۲ ̣ ' Ẓ Ọ ۲ Ầ 1 对应量 脉冲频率f 0 F5.25/2 F5.25 g 6-3-9 HDI ̇ ۸ Ọ Ầ 1	0	

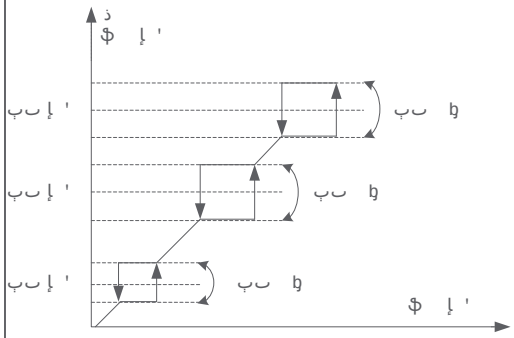
		̇ ژ ۲ ۏ̃ Ọ ۲ Ọ ۲ ۏ ̇ ژ ۲ ̣ ' F5.25 ژ ۲ ̇ ̣ ' ۲ ̣ ' ̀H Ẓ Ọ ۲ Ầ 2 ̇ ژ ۲ ۏ̃ Ọ ۲ Ọ ۲ ۏ ̇ ژ ۲ ̣ ' F5.25 ژ ۲ ̇ ̣ ' ۲ ̣ ' ̀H Ẓ 对应量 脉冲频率f 0 F5.25/2 F5.25 g 6-3-10 HDI ̇ ۸ Ọ Ầ 2		
F5.27	̇ ۸ ̀H ژ	Ạ ژ ۲ ̇ ̀H ژ ̀H ژ ۹ ڈ ۸ ̇ ̣ ' ۹ ۱ ỹ (0.00 Ḱ 10.00)s	0.05 s	
F5.28	ʒ	---	---	
F5.29	AI1	F5.29 Ḱ F5.31 AI ̀H ژ Ẃ Ọ ژ ۲ ʒ ̀H ژ ۹ ڈ Ầ Ḥ φ Ẓ ỹ ψ ̀H ژ φ Ẓ ۹ ỏ Ḥ Ầ F5.2~F5.31 χ (0.01 Ḱ 10.00)s	0.05 s	
F5.30	AI2		0.05 s	
F5.31	AI3		0.05 s	
F5.32	´Y ۱	0 χ ´Y ۱ 1 1 χ ´Y ۱ 2 2 χ ´Y ۱ 3 3 χ ´Y ۱ 4 0 χ ´Y ۱ 1 1 χ ´Y ۱ 2 2 χ ´Y ۱ 3 3 χ ´Y ۱ 4 0 χ ´Y ۱ 1 1 χ ´Y ۱ 2	0000	

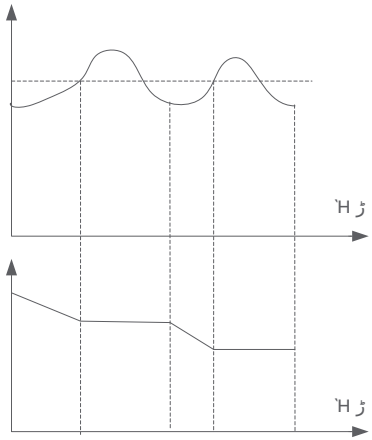
		RDY		
F6.04	Y HDO R0	BIT0:Y BIT :HD0 BIT :R0 BIT : BIT0 BIT :	00	
F6.05	Y		0.000 s	
F6.06	Y		0.000 s	
F6.07	HDO		0.000 s	
F6.08	HDO		0.000 s	
F6.09	R0		0.000 s	
F6.10	R0		0.000 s	
F6.11	AO1	0	00	
F6.12	AO2	0	00	

		0 0 2*Iei 0 2*Iem 0 3*Tem 0 2*Pe 0 1.2*Ve 0 800V AI1 AI2 AI3 HDI AO1 AO2 250		
F6.13	HDO		00	
F6.14	AO1	AO1 AO2 F6.14 0.0 200.0 F6.15 -100.0 100.0 F6.16 0.0 200.0 F6.17 -100.0 100.0	100.0	
F6.15	AO1		0.0	
F6.16	AO2		100.0	
F6.17	AO2		0.0	
F6.18	HDO	0.1 kHz 100.0 kHz	10.0 kHz	
F6.19	HDO	对应量 0 F6.18 脉冲频率f	0	

		 g,6-3-14 HDO ˙ ʌ Ọ Ẕ 1 ˙ ژ، ۵ Ọ ᵉ Ọ ᵉ ω ᶻ ˙ ژ، ا ' F6.18 ژ، ˙ ا ' Ọ ᵉ ا ' ʿH Ẓ Ọ ᵉ Ẕ 2 ˙ ژ، ۵ Ọ ᵉ Ọ ᵉ ω ᶻ ˙ ژ ا ' F6.18 ژ، ˙ ا ' ᶻ Ọ ᵉ ا ' ʿH Ẓ  g,6-3-15 HDO ˙ ʌ Ọ Ẕ 2		
F6.20	ا '˙ (FAR) ، ỷ	 g,6-3-16 ا '˙ ʒ ژ، Ỵ g,	2.50 Hz	

		ḅ g,ʿA Ẹ ا ʰ ژ، ا ' ḅ Φ ا ' ق ، ỷ ɲ ژ، ˙ ʒ Y ˡ Ḍ ژ، æ χ (0.00 Ḱ 300.00)Hz		
F6.21	FDT1 Ẓ		50.00 Hz	
F6.22	FDT1 ◖	Ẹ ژ، ا ' ʌ Φ ا ' FDT1 Ẓ ʿH ژ	1.00 Hz	
F6.23	FDT2 Ẓ	، ʒ ˙ ژ، ا ' ں Ḥ FDT1 Ẓ •	25.00 Hz	
F6.24	FDT2 ◖	، ا ' FDT1 Ẓ-FDT1 ◖ ḅ g,ʿA  g,6-3-17 ا ' Ẓ ⅃ Ỵ g, F6.21~F6.24 χ (0.00 Ḱ 300.00)Hz	1.00 Hz	
F7				
F7.00	ʿA	ḥ ʒ ت ɥ ʿḤ Ă ؤ ة 4.3 ˡ ‗ —ʿḤ Ă æ ب ˝ ʿA ʿO	0000	
F7.01	ڢ	ḥ ڢ ث ^ ڢ ᵘ ڢ ث ◀ ▶ ڢ ᵘ ڢ ث RUN STOP ڢ ᵘ ڢ ɥ OK ڢ Ẍ ʒ ۵ W PRG ڢ ڢ ψ Ẹ ʿḤ Ă ‗ — ڢ ɥ ʿḤ Ă ɹ χ PRG ڢ Ẍ ʒ ۵ W ڢ	0	
F7.02	MF(^) ڢ	ᵉ ȳ ȯ ȳ	0	
F7.03	ʿQ ʒ Φ ɹ	ڢ ʿQ ы ḅ ɥ ۵ ˇ ث F0.05 ⊃ ᵘ ۵ ˇ ث ᵘ ڢ ۵ ˇ	0	

	ţ			
F8.12	' 3 ب ب إ		0.00 Hz	
F8.13	' 3 ب ب إ ţ	 g 6-3-18 ب ب إ ' ţ Ỳ g ƒ ' إ ' Æ Ṇ ' ب ب إ ƒ ' إ ⁿ ƒ ţ ⅈ ⅈ Hu إ ' ŋ إ ⁿ ژ ' إ q ذ Ṇ Hu u d ţ Hu ' إ F8.08 χ (0.00 Ḱ 300.00)Hz F8.09 χ (0.00 Ḱ 30.00)Hz F8.10 χ (0.00 Ḱ 300.00)Hz F8.11 χ (0.00 Ḱ 30.00)Hz F8.12 χ (0.00 Ḱ 300.00)Hz F8.13 χ (0.00 Ḱ 30.00)Hz	0.00 Hz	
F8.14	ȳ W ∨	ⅈ ⁿ W `H ţ u ⅈ ⁿ ĩ Ã Ḋ	0	
F8.15	ȳ W ∨ ⅈ ể `H ژ	ⅈ ể `H ژ F8.13 χ 0 χ Ă 1 χ Ă F8.14 χ (0.0 Ḱ 10.0)s	0.0 s	
F8.16	Ă Ƒ	650 V Ḱ 750 V(380V ⅈ ˚) 340 V Ḱ 380 V(220V ⅈ ˚)	720(380V ⅈ ˚) 360(220V ⅈ ˚)	
F8.17	ǎ	Ă Ă ت ọ ⁞ ⅈ̀ Æ گ̃ ƒ ⅃ أ Ṇ ⁿ ể φ ⅇ ớ	0	
F8.18	ǎ Æ ,	(0.0 Ḱ 100.0) Ƒ ŋ ⅃ ʒ ũ ẽ	80.0	

		ƒ ⅃ Ẓ ǎ ˙ گ̃ گ̃ Ö ⊃ أ ,		
F8.19	' إ ذ ذ Ṇ	ذ Ṇ ذ Ṇ	1	
F8.20	ذ		001	
F8.21	, ţ	0 χ (Ḷ˙ گ̃ `H) 1 χ ţ ыя 0 χ Ă 1 χ Ă Ḥ ỹ 0 χ ẽ ẽ 1 χ ũ ẽ  g 6-3-19 , Ỳ g إ ⁿ˚˚ ق ذ ṵ ớ ẽ φ ء ⅈ̀ ج گ̃ ں ' Ḥ ژ ⅈ ' ں ' `H ⅈ ⁿ ⅈ ⅈ ⅈ ⁿ ǎ ⅈ ⁿ ⅈ̀ ⅈ̀ ⅈ ح ḅ ' Ạ ⁿ ء ⅈ̀ ژ ب إ ⁿ˚˚ ţ ʒ , ⅈ̀ ⅈ Ẋ F8.21 ‰ ⅈ , ţ ḅ ' ⅈ ţ ⁿ ژ ⅈ ' ȳ ں Ẹ W ⅈ̀ ⅈ Ḥ , ţ W Ạ˚˚ ḅ g Ạ		

		LED ɥ˜ ĩ ∨ V/F ˙ ذ ˙ ذ ˙ Æ ذ ˙ Ę ⅃ ذ Ω ğ Ḥ ئ 15 ğ ذ Ω ذ Ă ù̀ ˙ إ ʰ ح ع ⅃ ˍ ' ʃ ح ژ ˍ		
F8.22	ʃ ˙	ʃ ˙ ^ ¡ ` ṅ ش ©DW‘•©°½G|-œ€ ,‡ Â yƒ¢!@YX ° 9S ‘Wv 4 •œ" 46 Ð@€|€tðO		

F8.28	○ ŷ ̀H ژ Ẃ"Ω	F8.26 χ 0.0 Ḱ 300.0 F8.27 χ 0.0 Ḱ 250.0 F8.28 χ (0.1 Ḱ 25.0)s F8.29 χ (0.00 Ḱ 99.99)Hz/s	2.0 s	
F8.29	ŷ ̀H إ ' ں '		10.00 Hz/s	
F8.30	ɨ إ Ö	أ Ã ʜ ژ ˍ ⅃ Ḍ 9 Æ إ ʰ (0.00 Ḱ 300.00)Hz Ḱ	0.50 Hz	ر ذ
F8.31	ʒ	---	---	
F8.32	˙ ى ⅃ "Ω	V/F ˙ ̀H ذ "Ω ˙ ى 0 Ḱ 255	10	
F8.33	⅃ ̃A ˙	Ấ Ấ إ ʰ k ɲ □ ỷ ⅃ ẑ ⋮ ę □ ỷ ↑ ̀ ˜ ⅃ ̃A ʒ ˙ ȳ ȳ ˙ ⅃ ̃A ȳ ̀H ⅃ ̃A ⅃ ʒ ˙ W k ɲ □ ỷ ⅃ ẑ ˜ ũ ỷ̃ ȳ ⅃ ʒ ⅃ ̃A ʒ	1	
F8.34	⅃ ⅃	⅃ ⅃ ⅃ ⅃ إ ⅃ ⅃ ⅃ ⅃ ⅃ ⅃ ʃ ĩ إ ʰ ژ ˍ إ ' ⅃ إ Φ ' Ọ	0	
F8.35	إ Ấ Ấ	**LED** 0 χ 1 χ ⅃ Ḍ ẻ **LED** 0 χ Ọ إ ' 1 χ ω ʒ إ ' **LED** 0 χ ȳ ʟ Ỏ 1 χ ȳ ʟ Ỏ **LED** 0 χ ÿ 1 χ ÿ	0000	
F8.36	إ ⅃ أ إ '	ʒ إ ↑ õ ˙ إ ʰ أ ⅃ إ ' 0.00 Hz Ḱ إ ' ں F0.08	0.00 Hz	

F8.37		(0.0 Ḱ 3600.0)s	0.0 s	
F8.38		0.0 Ḱ 50.0	0.0	
F8.39		0.0 Ḱ 50.0	0.0	
F8.40		(0.1 Ḱ 999.9)s	10.0 s	
F8.41		0.0 Ḱ 100.0 ( )	50.0	
		F9 PID		
F9.00			0	
F9.01		AI1 AI2 AI3	1	
F9.02		AI1 AI2 AI1+ AI2 AI1- AI2 Min{ AI1 AI2} Max{ AI1 AI2} HDI	1	
F9.03		-10.00 V Ḱ 10.00 V	0.00 V	
F9.04		(0 Ḱ 39000)rpm	0 rpm	
F9.05		F9.05 χ 10V 20mA	0.0	
F9.06		F9.06 χ 10V	0.0	

		20mA		
F9.07		F9.07 χ 10V 20mA		
F9.08		F9.08 χ 10V 20mA F9.05 χ 0.0 Ḱ (F9.07) F9.06 χ 0.0 Ḱ 100.0 F9.07 χ (F9.05) Ḱ 100.0 F9.08 χ 0.0 Ḱ 100	100.0	
F9.09	KP	KP	2.000	
F9.10	Ki		0.100	
F9.11	Kd	F9.09 Ḱ F9.11 χ 0.000 Ḱ 10.000	0.100	
F9.12		(0.01 Ḱ 50.00)s	0.50 s	
F9.13		(0.01 Ḱ 10.00)s	0.05 S	
F9.14		0.0 Ḱ 20.0	2.0	
F9.15			0	
F9.16			0	
F9.17		F9.17	0.00 Hz	
F9.18		F9.17 χ (0.00 Ḱ 300.00)Hz F9.18 χ (0.0 Ḱ 3600.0)s	0.0 s	

F9.19	^ ژ ɤ ʎ 1		0.00 V	
F9.20	^ ژ ɤ ʎ 2		0.00 V	
F9.21	^ ژ ɤ ʎ 3		0.00 V	
F9.22	^ ژ ɤ ʎ 4		0.00 V	
F9.23	^ ژ ɤ ʎ 5		0.00 V	
F9.24	^ ژ ɤ ʎ 6	ɱ ژ ɤ ʎ ɳ F9.01 4	0.00 V	
F9.25	^ ژ ɤ ʎ 7	ʊ F9.19 Ḱ F9.33 ^ ژ ɤ ʎ Ö Ă ژ ɤ ʎ	0.00 V	
F9.26	^ ژ ɤ ʎ 8	^ ژ ɤ ʎ 1 Ḱ 15 ʊ ɤ Ḍ	0.00 V	
F9.27	^ ژ ɤ ʎ 9	ʌ ʰ ˥ ˅ ð F5.01 Ḱ F5.07 ɤ Ḍ 30 Ḱ 33 ^ ژ ɤ ʎ ˙ Ж ʌ ح F9.01 ʎ	0.00 V	
F9.28	^ ژ ɤ ʎ 10	F9.19 Ḱ F9.33 χ (-10.00 Ḱ 10.00)V	0.00 V	
F9.29	^ ژ ɤ ʎ 11		0.00 V	
F9.30	^ ژ ɤ ʎ 12		0.00 V	
F9.31	^ ژ ɤ ʎ 13		0.00 V	
F9.32	^ ژ ɤ ʎ 14		0.00 V	
F9.33	^ ژ ɤ ʎ 15		0.00 V	
F9.34	ژ ɤ ژ ˌ چ	ژ ɤ ژ ˌ ق إ ʰ ˍ إ ˍ ژ ɤ ژ ˌ ق چ Ḥ ḃ ˈ گ چ چ إ ʰ إ ˍ	0	
F9.35		ʃ ɭ Ẕ ĕ ĕ ˙ ɤ ɹ ɭ ʃ Ẹ F9.35 ɸ ɹ “1”ʿH Ä ᵏ	0	
F9.36	Ẇ	Ẹ ʊ ɸ ɹ “0”ʿH ṭ̀ ᾧ	50.0	
F9.37	ǎ ʿH	F9.35 χ	30.0 s	
F9.38	ᵩ Ẇ	ṭ̀ ᾧ Æ F9.36 χ 0.0 Ḱ 100.0 ◗ F9.37 χ (0.0 Ḱ 6000.0)s F9.38 χ 0.0 Ḱ 100.0 ◗	50.0	
FA PLC				
FA.00	ɤ ˅ PLC Ä Ä̃	**LED PLC** 0 χ Ă 1 χ ʃ ɤ ȳ	0000	

		2 χ ʃ ɤ ʒ ɷ ʎ Ö 3 χ ʎ ʃ ɤ 0 χ ɤ Ä̀ Ḋ Ȧ 1 χ ȳ (ǎ ᾧ ǎ̀)ʿH ˉ ˋ ʎ ʎ 2 χ ȳ (ǎ ᾧ ǎ̀)ʿH ˉ ˋ إ ˈ ʎ ʎ 0 χ ɥ 1 χ ɥ ʿH ˉ ˋ إ ˈ 0 χ 1 χ ˊ		
FA.01	ˋ 1ɸ ɹ	0 χ ^ إ ˈ N(N: Ẕ Ẹ ˋ ˋ) 1 χ F0.02 ˜ 2 χ ^ ژ ɤ ʎ N(N: Ẕ Ẹ ˋ ˋ) 3: ژ ɤ ˙ F9.01 ˜ ʎ Ö 0 χ چ 1 χ چ 2 χ ʊ 0 χ ˚˚ ʿH ژ 1 1 χ ˚˚ ʿH ژ 2 2 χ ˚˚ ʿH ژ 3 3 χ ˚˚ ʿH ژ 4	000	
FA.02	ˋ 1 ʿH ژ	0.0 Ḱ 6500.0	20.0	
FA.03	ˋ 2ɸ ɹ	FA.01	000	
FA.04	ˋ 2 ʿH ژ	0.0 Ḱ 6500.0	20.0	
FA.05	ˋ 3ɸ ɹ	FA.01	000	
FA.06	ˋ 3 ʿH ژ	0.0 Ḱ 6500.0	20.0	
FA.07	ˋ 4ɸ ɹ	FA.01	000	

FA.08	ڳ 4 ٰH ڑ	0.0 Ḱ 6500.0	20.0	
FA.09	ڳ 5$ ـ	FA.01	000	
FA.10	ڳ 5 ٰH ڑ	0.0 Ḱ 6500.0	20.0	
FA.11	ڳ 6$ ـ	FA.01	000	
FA.12	ڳ 6 ٰH ڑ	0.0 Ḱ 6500.0	20.0	
FA.13	ڳ 7$ ـ	FA.01	000	
FA.14	ڳ 7 ٰH ڑ	0.0 Ḱ 6500.0	20.0	
FA.15	ڳ 8$ ـ	FA.01	000	
FA.16	ڳ 8 ٰH ڑ	0.0 Ḱ 6500.0	20.0	
FA.17	ڳ 9$ ـ	FA.01	000	
FA.18	ڳ 9 ٰH ڑ	0.0 Ḱ 6500.0	20.0	
FA.19	ڳ 10$ ـ	FA.01	000	
FA.20	ڳ 10 ٰH ڑ	0.0 Ḱ 6500.0	20.0	
FA.21	ڳ 11$ ـ	FA.01	000	
FA.22	ڳ 11 ٰH ڑ	0.0 Ḱ 6500.0	20.0	
FA.23	ڳ 12$ ـ	FA.01	000	
FA.24	ڳ 12 ٰH ڑ	0.0 Ḱ 6500.0	20.0	
FA.25	ڳ 13$ ـ	FA.01	000	
FA.26	ڳ 13 ٰH ڑ	0.0 Ḱ 6500.0	20.0	
FA.27	ڳ 14$ ـ	FA.01	000	
FA.28	ڳ 14 ٰH ڑ	0.0 Ḱ 6500.0	20.0	
FA.29	ڳ 15$ ـ	FA.01	000	
FA.30	ڳ 15 ٰH ڑ	0.0 Ḱ 6500.0	20.0	

FA.31	^ ' 1		5.00 Hz	
FA.32	^ ' 2		10.00 Hz	
FA.33	^ ' 3		15.00 Hz	
FA.34	^ ' 4		20.00 Hz	
FA.35	^ ' 5		25.00 Hz	
FA.36	^ ' 6		30.00 Hz	
FA.37	^ ' 7	' ^ Ǵ Ǎ Æ ت ϧ F5.01 Ḱ F5.07 ^ ˡ Ḍ “24” “25” “26” “27”	35.00 Hz	
FA.38	^ ' 8		40.00 Hz	
FA.39	^ ' 9	FA.31 Ḱ FA.45 χ F0.09 ' ں Ḱ F0.08 ' ں	45.00 Hz	
FA.40	^ ' 10		50.00 Hz	
FA.41	^ ' 11		10.00 Hz	
FA.42	^ ' 12		20.00 Hz	
FA.43	^ ' 13		30.00 Hz	
FA.44	^ ' 14		40.00 Hz	
FA.45	^ ' 15		50.00 Hz	
Fb				
Fb.00	g ş χ	أ ˡ ˢ ʔMODBUS ˡ ˜ ˡ ˡ ˢ Ă 1 1 ş χ Ö 1 Ḱ 247	1	
Fb.01	g ˝ ' $ ˡ	˝Ǫ ˡ $ ˢ ˡ ˢ ˝Ǫ ˢ ' ˝ ǫ ˢ ' Y ˢ ˡ $ ˢ ˡ ˝ ' ˝ ǫ ˢ ˝ g ˢ ỷ ˢ ỏ 2400bps 4800bps 9600bps 19200bps 38400bps 115200bps	2	
Fb.02	˝Ǫ ˢ > ج $ ˡ	ˢ $ ˢ ˝Ǫ Ã ǫ ˢ ˝ g ˢ ˢ ج > ˢ 8-N-2 for RTU ˢ ج > ˢ 8-O-1 for RTU ÿ > ج 8-E-1 for RTU ˢ ج > ˢ 7-N-2 for RTU ˢ ج > ˢ 7-O-1 for RTU	0	

		ÿ › ج 7-E-1 for RTU ṇ › ج 8-N-2 for ASCII ¯ › ج 8-O-1 for ASCII ÿ › ج 8-E-1 for ASCII ṇ › ج 7-N-2 for ASCII ¯ › ج 7-O-1 for ASCII ÿ › ج 7-E-1 for ASCII		
Fb.03	g Ẓ ١ å `H	ḷ ʰ ̈Ω ṏ ˩ ˙ ɥ Ẓ ١ Ω̈ Ẓ ˵ ژ `H ك ژ ژ ḃ ' Ẓ ١ å `H ١ ١ ∫ ת `H ١ å `H ١ ١ `H ژ ˊ ḃ Ẓ ١ å `H ذ ١ ١ ∫ ת `H ژ ˵ ١ ١ ∫ ת Ω̈ ḷ å ١ ể ˙ Ẓ ١ å `H `H ژ ˵ ἐ È ɥ Ω̈ (0 Ḱ 200)ms	5 ms	
Fb.04	g ʌ `H ڭ ṏ `H ژ	Ẹ ǰ ϕ ɹ ă ˵ ˵ `H ḃ ' g g ك `H ژ ʌ˙ g ʌ `H `H ژ ١ ١ "485 g ṏ ڭ " Ẃ Ω̈ϕ ɹ ṇ ṏ ḃ ' ɡ ١ g ١ ١ ϕ ɹ Ω̈ ȣ g ˢ õ 0.0 s(ṇ ṏ) (0.1 Ḱ 100.0)s	0.0 s	
Fb.05	ژ ئ ∫ ת	ɛ Ẋ ȳ ج ɛ Ẋ ١ ١ ɛ ȳ Ȧ Ã ȳ g ˙ Ȧ Ã ɛ ȳ Ȧ Ã ȳ Ȧ̈ õ ˙ Ȧ Ã	1	
Fb.06	g ∫ ת Ă	˅ Ḥ Ă õ ɨ Ẓ ḷ ʰ ɥ ˅ ᵘ õ ɨ Ẓ ˅ Ḥ Ă ṇ ɨ Ẓ ḷ ʰ ɥ ح ᵘ õ ɨ Ẓ ˅ ᵘ ṇ ɨ Ẓ Ȧ Ã ح g ṏ '	0	
FC				
FC.00	PG ١ ʒ	J̌ ˽ ١ ʰ ١ ʒ ABZ ɯ ʒ ʒ ʒ ʒ	0	
FC.01	PG ج ˙ Ω̈	⁞ ˙ ١ ʰ PG ج ˙ Ω̈ PPR ϕ 1 Ḱ 10000 ɡ õ ỷ ɣ ʰ `H ت ọ ϕ ɹ Ω̈	2048	

		˵ ṇ Ẃ		
FC.02	PG ' ج Ȧ	A ʌ˙ B B ʌ˙ A ج `H A ʌ˙ B ψ ˊ ج `H B ʌ˙ A ḃ ' ḷ ʰ — PG ١ ẑ ˊ Ȧ ⊃ ḷ ʰ ١ ẑ ˊ Ȧ ϕ Ö "0" ψ "1" ˜ ṏ Ω̈ Ȧ ẍ ذ Ω̈ ١ Ȧ ˵ Ẓ ʜ ١ ể ˙ Ȧ ١	0	
FC.03	١ ʰ ʒ ˊ ١ Ω̈	ϕ ɨ ỷ ˊ Ω̈ ح ˊ Ω̈ Ḥ ˊ Ω̈ Ḥ `H ḃ ' õ ˥ ϕ ɯ ʒ Ḥ ˊ Ω̈ ˵ Ẓ ˊ Ḥ ˊ Ω̈ ɯ ١ ١ φ Ẓ ⁼ ȯ	30 H	
FC.04	PG Ă ١ ˥ `H ژ	ɲ Ă ١ ṏ ڭ ١ ˥ `H ژ FC.04 ï 0.0 ˊ PG Ă ١ ˥ E.PG ṏ ڭ 0.0 χ Ă 0.1 Ḱ 10.0	0.0	
FC.05	١ ʰ	١ ʰ Ł ɡ ɹ ˵ ϕ ɹ Ö 0.001 ١ ʰ ĩ Ł ɡ ɹ ɹ ⊃ ١ ʰ ژ ʰ ɡ ت Ł گ ϕ ɹ 0.001 Ḱ 65.535	0.001	
FC.06	AI4 ˊ ("E)	(0.01 Ḱ 10.00)s	0.05 s	
FC.07	AI5 ˊ ("E)	(0.01 Ḱ 10.00)s	0.05 s	
FC.08	AI6 ˊ ("E)	(0.01 Ḱ 10.00)s	0.05 s	
FC.09	AI7 ˊ ("E)	(0.01 Ḱ 10.00)s	0.05 s	
FC.10	´Y ١ "E	0 χ ´Y ١ 1 1 χ ´Y ١ 2 2 χ ´Y ١ 3	0000	

		3 χ ΄Y ⅄ 4 0 χ ΄Y ⅄ 1 1 χ ΄Y ⅄ 2 2 χ ΄Y ⅄ 3 3 χ ΄Y ⅄ 4 0 χ ΄Y ⅄ 1 1 χ ΄Y ⅄ 2 2 χ ΄Y ⅄ 3 3 χ ΄Y ⅄ 4 0 χ ΄Y ⅄ 1 1 χ ΄Y ⅄ 2 2 χ ΄Y ⅄ 3 3 χ ΄Y ⅄ 4		
Fd				
Fd.00	⅄ Φ ɹ	⅄ ˝ Ά Ã Φ ɹ ' (-300.00 Ḱ 300.00)Hz	0.00 Hz	
Fd.01	⅄ Φ ɹ '	⅄ ˝ Ά Ã ʊ Φ ɹ ' (-300.00 Ḱ 300.00)Hz	0.00 Hz	
Fd.02	Φ ɹ '	⅄ ʊ ɹ ' Ö ˎ ج ق Ö ˎ ج (-300.00 Ḱ 300.00)Hz	0.00 Hz	
Fd.03	⅄ ɹ '	⅄ ˝ ɹ ' ɹ ɹ ʰ ɹ ' ɹ ' Ά (-300.00 Ḱ 300.00)Hz	0.00 Hz	
Fd.04	ج ⅄	⅄ ج ˙ Ά Ã ج ⅄ Ö ج Ά -300.0 Ḱ 300.0	0.00	
Fd.05	ɹ ɹ '	⅄ ɹ ʰ ɹ ɹ ' ɹ ' Ά (-300.00 Ḱ 300.00)Hz	0.00 Hz	
Fd.06	ɹ	⅄ ɹ ʰ ɹ (0 Ḱ 480)V	0 V	
Fd.07	ɹ ⅃	⅄ ɹ ʰ ɹ ⅃ (0.0 Ḱ 3.0)Ie	0.0 A	

Fd.08	ج	⅄ ج 0 Ḱ 60000 rpm	0rpm	
Fd.09	ɹ ج	⅄ ɹ ʰ ɹ ج ئ ج -300.0 Ḱ 300.0	0.0	
Fd.10	ASR ˙ ʰ ɹ	Ĭ ỷ ɹ ذ لا ɹ ʰ ɹ Ö -300.0 Ḱ 300.0	0.0	
Fd.11	ج ⅃	⅄ ɹ ʰ ج ⅃ ئ ⅃ ˋ (-300.0 Ḱ +300.0	0.0	
Fd.12	⅃	⅄ ⅃ ئ ⅃ ˋ (0 Ḱ +100.0	0.0	
Fd.13	'	⅄ ɹ ʰ ɹ ' ئ ' ˋ 0.0 Ḱ 200.0 ئ '	0.0	
Fd.14	ɹ ⅄ '	Ã لا ɹ ɹ ⅄ ج Ḍ ɹ ' (-300.00 Ḱ 300.00)Hz	0.00 Hz	
Fd.15	⅄ ɹ '	⅄ لا ɹ ɹ ⅄ ʰ ⅄ ج Ḍ ɹ ' (-300.00 Ḱ 300.00)Hz	0.00 Hz	
Fd.16	⅄	⅄ ɹ ʰ ⅄ (0 Ḱ 800)V	0 V	
Fd.17	ɹ ʰ ɹ ˆ ɔ̃	/ ȳ 0 ȳ 1 ج / ج 0 ج 1 ج ɹ 1 ɔ̃ ɸ̃ 1 ɔ̃ ɸ̃ ˆ 1 ɔ̃ ɸ̃ ỏ 1 ɔ̃ ɸ̃ أ 1 ɔ̃ ɸ̃ ز ذ 1 ɔ̃ ɸ̃ ⅃ ن 1 ɔ̃ ɸ̃ DC ن 1 ɔ̃ ɸ̃ ج ن Ẅ 1 ɔ̃ ɸ̃ ỷ ن Ẅ 1 ɔ̃ ɸ̃ ɹ ʰ ɸ̃ ڭ 1 ɔ̃ ɸ̃ ỷ ˙ 1 ɔ̃ ɸ̃ ج ˙ 1 ɔ̃ ɸ̃ 0	0	

		0.0 Ḱ 150.0		
Fd.36	̀H ژ ⁄ ɯ	̆ ̇ ̇ ⁄ ɯ ̀H ژ ̀H ژ ɩ ̃A ̀H ژ χ Fd.36 Ḱ Fd.38 χ (0 Ḱ 65535)h	0h	
Fd.37	̀H ژ ⁄ ɯ		0h	
Fd.38	ɩ ̃A ̀H ژ ⁄ ɯ		0h	
Fd.39	ɨ	(0 Ḱ 999.9)KVA ʒ ϕ	ϕ	
Fd.40	ɨ	(0 Ḱ 999)V ʒ ϕ	ϕ	
Fd.41	ɨ ll	(0 Ḱ 999.9)A ʒ ϕ	ϕ	
Fd.42	β ⁄ ̊	0 Ḱ FFFF	300	
Fd.43	̧ v	0.00 Ḱ 99.99	3.00	
Fd.44	̈A ̇ v	0 Ḱ 99.99	1.00	
FE				
FE.00	̈ϕ ̃ ̀H ⁄ ʰ Y ⁄ ̣D ژ ̣ ̆A	0 χ ̆A 1 χ ̆A(ð ̈ϕ ̃) 0 χ ̆A 1 χ ̆A 0 χ ̆A 1 χ ̆A	0000	
FE.01	ʒ ɔ ̇A ̆A	̆A ̃ω ɔ ʒ ≠ ́ϑ ̊y ̆ɨ ʰ ق ɔ ̃ω ɔ ʒ ψ ̈ Ḥ ̊y ̈ ̣g Ḥ ̀ϑ ̈Ω♬ ̃ϕ ' ̄Z ̣D♬ ʒ Ö ̆A ̣E ɔ ̃Ω ̈A ب Ḥ ̊y ≠ ́ϑ ̃Ï ̣ɨ ' Ḥ 30Hz		

FE.06	ᶜᶠ ᶜᶠ ᴸ ᵉ 1	ᶻ ᴳ ᵊ ᴵ (E.SPI) ᶻ ᵊ ᵊ ᴵ (E.SPO) ᵗ ᵉ ᴳ (E.FO) (E.OH1) ᵀᵒ ᵃ ᴴ 1 ᵃ (E.OH1) ᵀᵒ ᵃ ᴴ 2 ᵃ (E.OH2) ᵗ ᴴ ᵊ (E.OL2) (ᵓ ᵒ ᵕ ᵊ ᵖ 1 ȳ ᶻ ᵊ		

		ļ ᴴ ɺ ╙ ļ ˈ ļ ᴴ ꜛ ȭ ĕ ˮA៖ ǐ Ꙇ ѡ ῷ ὧ ʟ ẹ ῷ ὧ ʟ ẹ1 Ʒ ɔ ɛ ؤ ɺ ب ˮ ῷ ὧ ʃ ת A ծ ė q ⱽ ɣ 0 Ḱ 55		

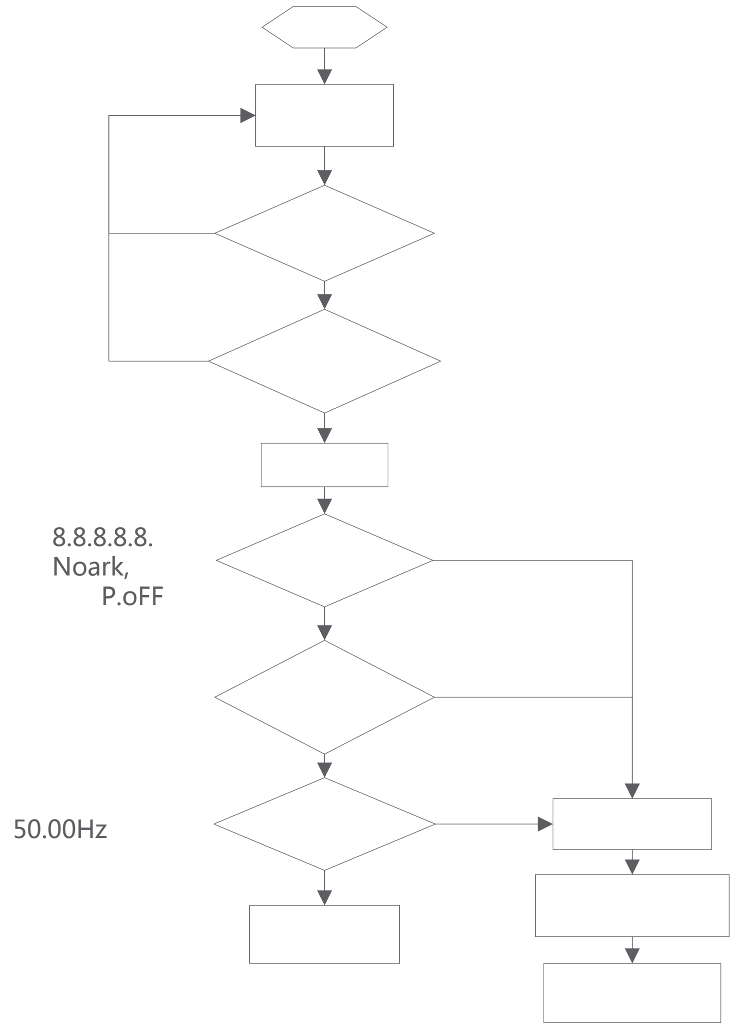
ⱽ ɣ ؤ ɹ ب ˮ

7.1 ɣ ת

ɣ ʟ ⱽ ļ ᴴ ę ؤ ɺ ب ˮ ˮḤĂ

7.2 ث

ت Ł ⱽ ɣ ĕ ʟ Ŀ ɺ ḅ ƍ ˮA χ



ƍ 7-2-1 ļ ᴴ ˮḤĂ ╙

7.3 Ã

7.3.1

ḷ ʜ ᵘ ĩ ḷ ʜ ᵘ ̈Ḥ̆Ă ɣ ȳ ɑ̃ ᵖ ᵛ
ᵗ ᵘ ˂ χ

1 ̈Ḥ̆Ă ˏ — χ ̈Ḥ̆Ă ˏ — RUN STOP MFᵹ ˙ ψ

2 ˙ ᵛ Ḏ χ ˙ ᵛ Ḏ Xi Xj COM ᵈ Ã Xk ᵈ Ã ˙ ψ

3 g ˙ χ RS485 g ˙

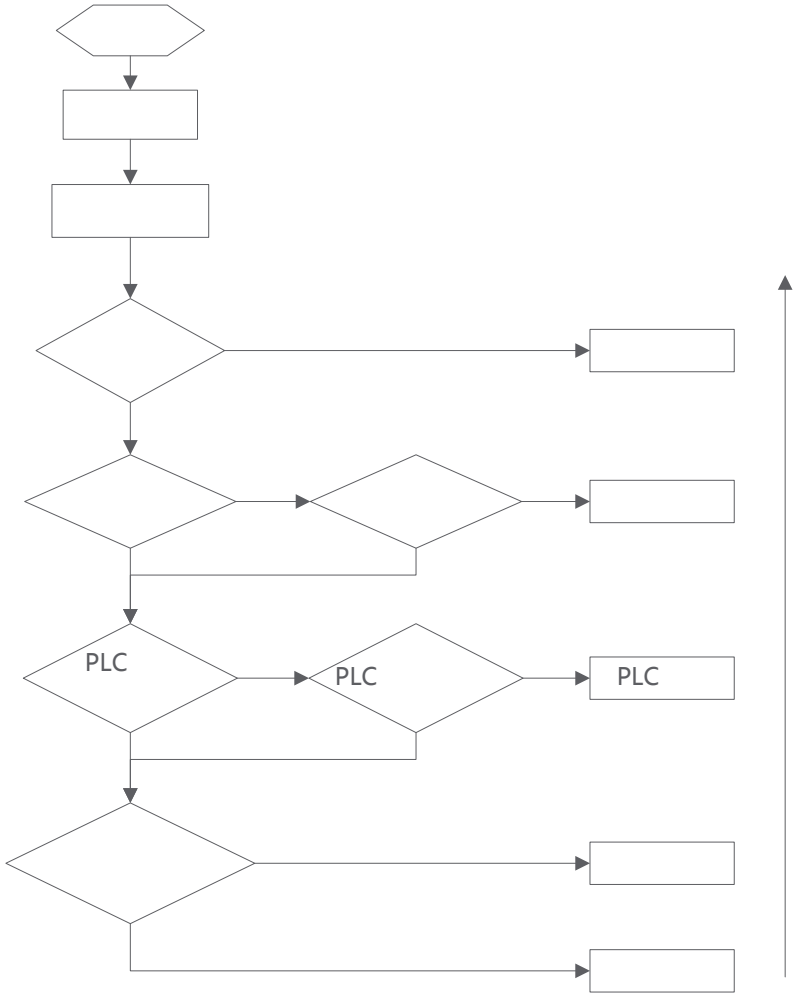
ᵘ F0.01 ɑ̃ ^ ᵹ ᵛ Ḏ F5.01 Ḱ F5.07

15 16 17 ˙ ˙

7.3.2

7.3.3

7.3.4



g,7-3-1 ỷ ˙ Ã Ȧ Ã ɤ ᵈ

Ȧ Ã ᵗ ᵛ ḅ χ

1 ᵖ χ

ḷ ʜ ḡ ȳ ᵗ õ ˙ ᵖ ᵘ æ ḅ ̈Ḥ̆Ă ˏ —MFᵹ ᵖ ḷ

' ð F8.06 F8.07

2 ᵹ ᵛ χ

ᵹ ᵛ ɷ̃ ɷ̃ F9.00 ï 1 ḷ ʜ ᵹ ᵛ Ȧ Ã Ł ᵈ

ᵓ ᵻ ᵹ ᵛ ᵹ ð F9 ᵈ ^ ᵛ Ḏ F5.01 Ḱ F5.07 37

ڎ ע Ǎ Ã¸ ŵ ˊ ڕ Ḥ ۱ ̣ Ǎ Ã

3 PLC χ PLC ũ ŵ ḷ ʰ PLC Ǎ Ã ḷ ʰ Ł Ĺ ϰ

Φ Ǎ Ã ^ ۱ Ḍ F5.01 Ḱ F5.07 40 PLC

Ǎ Ã¸ ŵ ˊ ڕ Ḥ ۱ ̣ Ǎ Ã

4 ^ χ 4 ^ ۱ Ḍ F5.01 Ḱ F5.07 24 25 26 27

Ã / ڎ ۱ ^ ḷ ' 1 Ḱ 15 FA.31 Ḱ FA.45 ^

7.3.5

ḷ ʰ ũ 4 ˙ Ǎ Ã F0.00 Φ χ

0 ṇ PG ˙ χ

Ẃ ḡ V/F ˙ Ǎ Ã ṇ ◗ ' د ۶ ۱ ڕ ۲ ʃ

1 PG ˙ χ

ج ᵠ Ẓ ̈ ȍ ج ⁻ ů ˙ ۱ ů ̈ ۲ ʃ

2 ṇ PG-V/F ˙ χ

Ẓ ۶ ۱ ĩ Ẽ ۲ ʃ Ẓ ḷ ʰ ˙ ^ ʃ

3 PG-V/F ˙ χ

Ẓ ۶ ۱ ĩ Ẽ ۲ ʃ ḷ ʰ ʃ

7.4 Φ ḷ '

۱ ۱ ۱ ḷ ḡ ̈ Ǎ Ã ḅ Ṃ Φ ḷ ' ʊ Ǎ Ã

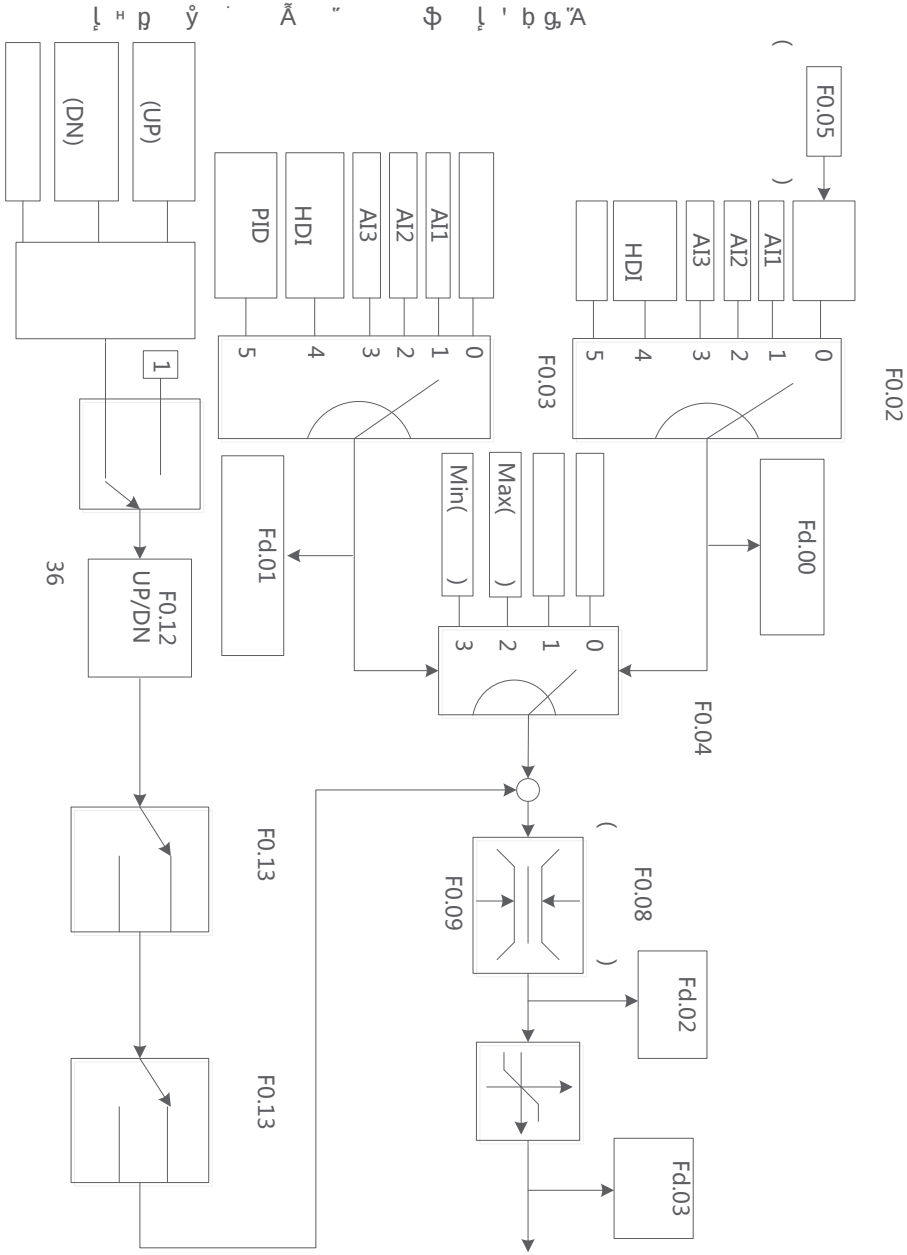
ت ǎ ۱ ʊ ʰ ۱ ɲ

7.4.1

ḷ ʰ ^ ڑ ۹ ۱ Ḍ ḷ ' ڑ ˊ ˊ h ̣ ḅ ˊ χ

	18	19	20	21	22
Ẅ Φ	Ẅ Φ	/	/	/	/
AI1	/	AI1	/	/	/
AI2	/	/	AI2	/	/
AI3	/	/	/	AI3	/
HDI	/	/	/	/	HDI

ɨ χ " / " ˊ ḡ Ẓ ۱ Ḍ ũ ŵ ʊ` Ĺ ṇ ŵ



ḡ 7-4-1 ů ˙ Ǎ ˝ Φ ḷ ' ڎ ḡ

ᵽ ˝ Ἀ Ἆ ᵢ ' ᑊ Ἀ Ἆ ᵗ ᾶ ^ Ἀ Ἆ ᑊ ˋ ᵢ ' ◊ ᐅ ᵢ ' ◊ ė Ἆ

ᵢ ' ◊ ᾶ ᵣ ᖇ χ ᵥ ᾪ ᑊ F0.05 AI1 ᑊ AI2 ᑊ AI3 ᑊ ᵥ ˙ HDI ᑊ Ἀ ᵽ ᵢ

Ẋ ^ ᑊ Ḍ ᑊ ᵣ ᾶ˙

ᵢ ' ◊ ᾶ ᵣ ᖇ χ ᵢ ᵢ ᑊ AI1 ᑊ AI2 ᑊ AI3 ᑊ ᵥ ˙ HDI ᑊ PID ᵣ ᵢ ' Ἀ

ᵢ ' ◊ ᐅ ᵢ ' ◊ ᵣ ᑊ ᾪ ᑊ ᵢ ᵃ ᑊ ᵢ ' ◊ ᐅ ᵢ ' ◊ ᾶ ᾶ

ᵢ ᵃ ᵥ ▲▼ ᵥ ᾶ ^ ᵣ ᖇ ᑊ Ḍ(13 ᐅ 14)

ᵽ ᑊ Ῑ ᾠ ᵢ ' ψ ^ ᵣ ᖇ F0.12(UP/DN ᵢ ') ˙ ᾶ ᵢ

ᵢ ' ψ F0.13 ᵸ ᵽ ᵢ ᵃ ᾖ ᾟ Ῑ ᾠ ᵢ ' Ö ψ

F0.13 ᵸ ᵽ ᵢ ᵃ ȳ W ᴝ Ῑ ᾠ ᵢ ' Ö ᾶ Ὅ ᵃ ˙ Ḋ ↑ ᾶ

7.4.2

ᵃ ᾪ ḃ ˋ χ

F0.02	ᵢ ' ◊		0 χ ᵥ ᾪ ᵽ (F0.05) 1 χ AI1 2 χ AI2 3 χ AI3 4 χ ᵥ ˙ HDI ᑊ 5 χ ᴝ	0
F0.03	ᵢ ' ◊		0 χ ᵢ ᵢ ᑊ 1 χ AI1 2 χ AI2 3 χ AI3 4 χ ᵥ ˙ HDI ᑊ 5 χ PID ᵣ ᵢ '	0
F0.04	ᵢ ' ◊ ᑊ		0 χ + 1 χ - 2 χ MAX ᑊ ᵢ ᑊ 3 χ MIN ᑊ ᵢ ᑊ	0

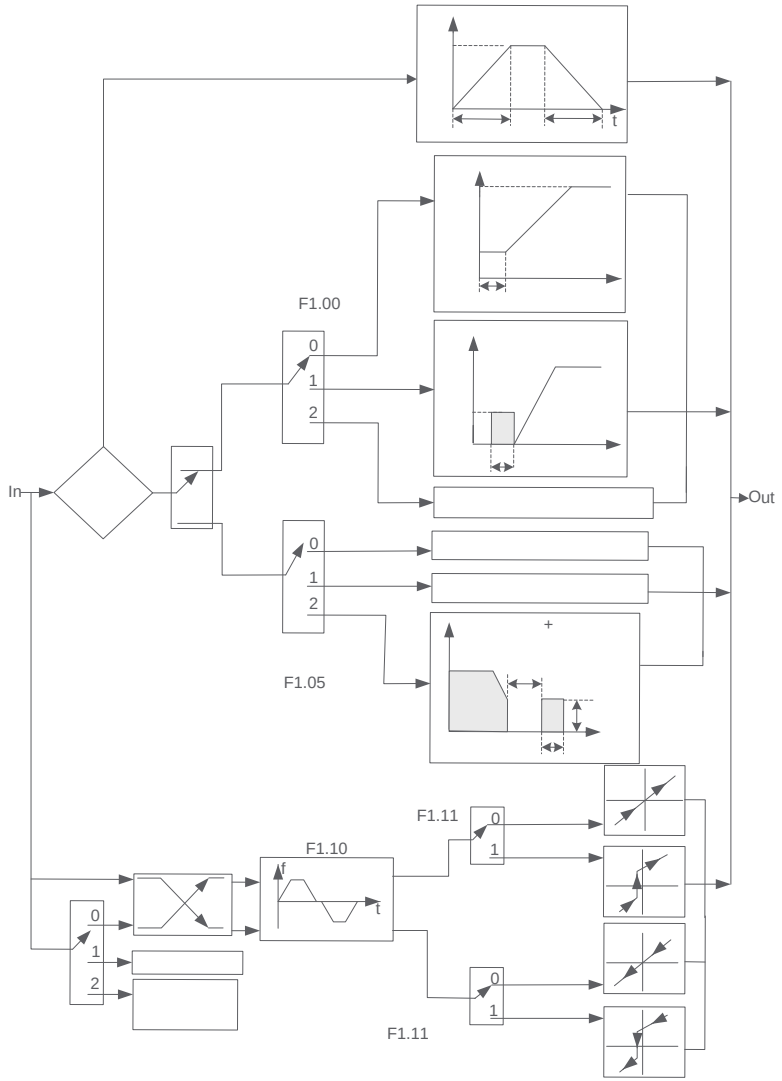
F0.05	ᵥ ᾪ ᵽ		F0.09 Ḱ F0.08	50.00 Hz
F0.07	ᵩ ᵥ ᵣ ᵢ '		ᵢ ' ᵢ (F 0 . 0 8) Ḱ 300.00Hz	50.00 Hz
F0.08	ᵢ ' ᵢ		F0.09 Ḱ F0.07	50.00 Hz
F0.09	ᵢ ' ᵢ		0.00 Ḱ F0.08	0.00 Hz
F0.12	UP/DN ᵢ '		0.01~99.99Hz/s	1.00 Hz/s
F0.13	UP/DN ᵢ ˙		**LED** 0 χ ᵢ ' ᾟ 1 χ ᵢ ' ᾟ **LED** 0 χ ȳ ᵢ ' ᴝ 1 χ ȳ ᵢ ' Ὅ ᵃ ˙ Ö	00
F5.01	^ ᾪ ᵣ ᖇ ᑊ Ḍ X1~ X6 HDI		13 χ ᵢ ' ᵸ UP 14 χ ᵢ ' ᵐ DN 19 χ ᵢ ' ◊˙ AI1 20 χ ᵢ ' ◊˙ AI2 21 χ ᵢ ' ◊˙ AI3 22 χ ᵢ ' ◊˙ HDI 23 χ ᵢ ᵢ ' ◊ ᵢ ᾠ 36 χ ᵐ	1
F5.02				2
F5.03				24
F5.04				25
F5.05				26
F5.06				27
F5.07				0
Fd.00	ᑊ ᵽ ᵢ '		-300.00 Ḱ +300.00Hz	0.00 Hz
Fd.01	ᵢ ᑊ ᵽ ᵢ '			0.00 Hz
Fd.02	ᵽ ᵢ '			0.00 Hz
Fd.03	ᾳ ᵢ ᑊ ᵢ '			0.00 Hz

7.5 [illegible]

[illegible]

7.5.1

[illegible]

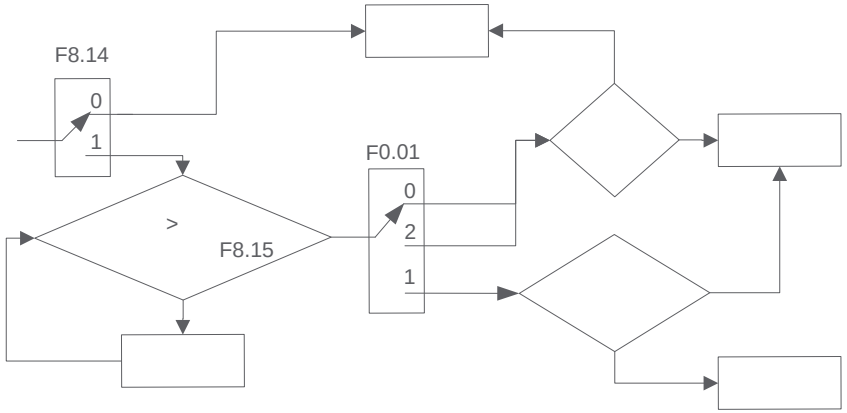


[illegible] 7-5-1

[illegible]

7.5.2

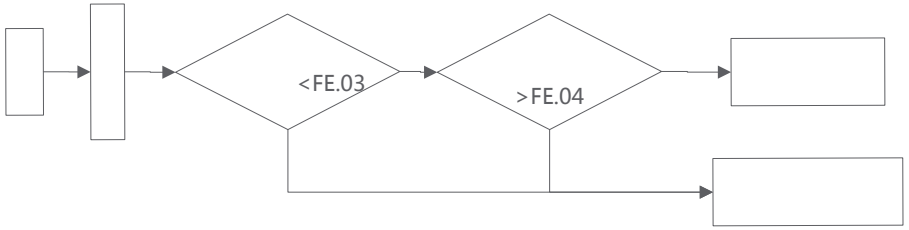
[illegible]



[illegible] 7-5-2

7.5.3

[illegible]



[illegible] 7-5-3

7.5.4

[illegible]

F0.01	[illegible]		[illegible]	0

			1 χ ˧˥ D̯ ˙ 2 χ g ˙	
F0.14	ˋH ڑ 1		(0.0 Ḱ 6000.0)s	ʒ
F0.15	˚˚ ˋH ڑ 1		(0.0 Ḱ 6000.0)s	ʒ
F1.00	˅ ´A Ã		0 χ ˅ Ầ Ḋ ɭ ' ˅ F1.01 1 χ ✕˙ W ˅ ɭ ' ˅ 2 χ چ ٹ ´A ˛ ˛ W ˅	0
F1.01	˅ Ầ Ḋ ɭ '		(0.00 Ḱ 60.00)Hz	0.00Hz
F1.02	˅ ɭ ' ʒ ˋH ڑ		(0.00 Ḱ 10.00)s	0.00s
F1.03	˅ ˙ ㄦ˙ ㄦ		0.0 Ḱ 100.0 ɭ ᴴ ᵢ ㄦ	0.0
F1.04	˅ ˙ ㄦ˙ ˋH ڑ		0.00 Ă (0.01 Ḱ 30.00)s	0.00s
F1.05	ȳ ´A Ã		0 χ˚˚ ȳ 1 χ ȳ 2 χ˚˚ ȳ + ㄦ˙	0
F1.06	ȳ ㄦ˙ ˅ Ḋ ɭ '		(0.00 Ḱ 60.00)Hz	0.00Hz
F1.07	ȳ ㄦ˙ ˧˥ ể ˋH ڑ		(0.00 Ḱ 10.00)s	0.00s
F1.08	ȳ ㄦ˙ ㄦ		0.0 Ḱ 100.0 ɭ ᴴ ᵢ ㄦ	0.0
F1.09	ȳ ㄦ˙ ˋH ڑ		0.00 Ă (0.01 Ḱ 30.00)s	0.00s
F1.10	چ ˋH ڑ		(0.00 Ḱ 360.00)s	0.00s
F1.11	ˊچ Ã		0 χ ɭ ' ˊں 1 χ ˅ ɭ ' ˊ	0
F1.13	´A Ã		0 χ ˧˥ ˚˚ 1 χ S´Y ˧˥ ˚˚	0

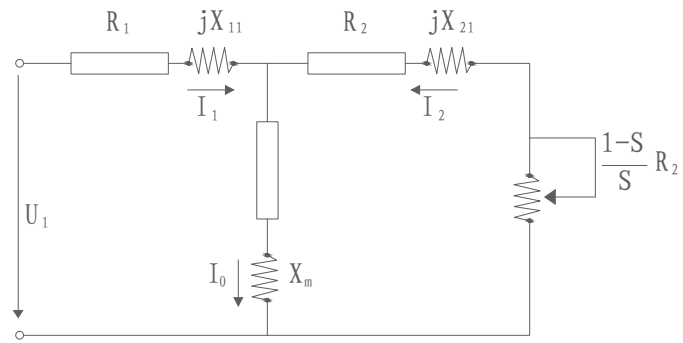
F1.14	S´Y ˧˥ ˅ Ḋ ˋH ڑ		10.0 Ḱ 50.0 ˋH ڑ	20
F1.15	S´Y ˧˥ ˩ ˋH ڑ		10.0 Ḱ 80.0 (ˋH ڑ)	20
F1.16	S´Y ˧˥˚˚ ˅ Ḋ ˋH ڑ		10.0 Ḱ 50.0 (˚˚ ˋH ڑ)	20
F1.17	S´Y ˧˥˚˚ ˩ ˋH ڑ		10.0 Ḱ 80.0 (˚˚ ˋH ڑ)	20
F8.06	ᴾ ɭ '		(0.10 Ḱ 50.00)Hz	5.00 Hz
F8.14	ȳ W ˅		0 χ Ă 1 χ Ă	0
F8.15	ȳ W ˅ ˧˥ ể ˋH ڑ		0.0~10.0 s	0.0 s
FE.03	ᴴ ᴴ ˜Ω̣		0 χ ṇ̀ 1 Ḱ 100 χ ᴴ ᴴ ˜Ω̣	0
FE.04	ᴴ ᴴ ڑ ڭ ˋH ڑ		(2.0 Ḱ 200.0)s	5.0 s

7.6 ˜Ω̣

7.6.1

˜Ω̣ ʊ ɥ ḅ ɡ ˜A χ

7.6 ˜Ω̣



ɡ 7-6-1 ầ õ ˧˥ ɷ̃ ٹ ɡ

ɡ R1 X11 R2 X21 Xm Io˙ ˛ ˊ χ D̯ گ D̯ ◂ y̤ چ D̯
گ چ D̯ ◂ y̤ y̤ ˧˥ ٹ ㄦ F2.08 چ D̯ ◂ y̤ ⊐

F2.07 Ḱ F2.11 ʒ ȁ ̈Ω ˊ Ʊщ ৲ ȝ Ã χ

1 گِ Ḍ گِ ǎ ج Ḍ گِ щ ৲ ȝ Ã χ

$$\%R=\frac{R}{V/(\sqrt{3}\times I)}\times 100\% \qquad 1$$

R χ Ḍ گِ ǎ ৲ Ḍ Ö ج Ḍ گِ گّ Ö ψ

V χ ئ ψ

I χ ئ ╚

2 y̰ ◖ y̰ ǎ y̰ щ ৲ ȝ Ã χ

$$\%X=\frac{X}{V/(\sqrt{3}\times I)}\times 100\% \qquad 2$$

X χ g ḭ ' ج Ḍ ◖ y̰ ⊃ ৲ Ḍ Ö ǎ y̰ ψ

V χ ئ ψ

I χ ئ ╚

ḅ ̈Ω ت Ł ̊A щ ৲ ȝ Ã щ ৲ Ö Ẓ F2.07 Ḱ F2.11

F2.11 ȁ ৲ ɔ ╚ ̈A ژ ৲ ৲ ɔ ╚ Ö

ḅ ̈Ω ̈Ω ̈ ḡ ̈Ω Ẃ ⌋ F2.06 Ḱ F2.10 ₽ Ö ɑ ̈

̈A . ̈ ẓ ȁ ' F2.01 ḭ ʰ F2.07 Ḱ F2.11 ̈Ω₽ ⌋ Ẓ ' ȁ

ɜ n ̈Ω F2.02 ȁ ئ Ö ȁ ɜ n ̈Ω ḅ ɹ ⌊

̈A ⁞ W ₽ ⌋

7.6.1

1. ȁ ̄ χ

̈Ω ˙ ت ọ ژ ৲ ɑ ȁ W ̈Ω F2.01 Ḱ F2.06

̄ ̈Ω ̀H ⌋ ̄ ↑ ȍ ̀H ⌊ ȁ Ḍ گِ

R1 ئ ḭ ' ◖ y̰ X ج Ḍ گِ R2 ̈A ⌊ ̈Ω Ẓ

˙ ৲F2.07 F2.08 ⊃ F2.09

2 χ Ă ȁ ' ج

̈Ω ˙ ت ọ ژ ৲ ɑ ȁ W ̈Ω F2.01 Ḱ F2.06

' ج ̈Ω ̀H ȁ ⌅ ⌋ ̄ ↑ ȍ ̀H ⌊ ȁ Ḍ گِ

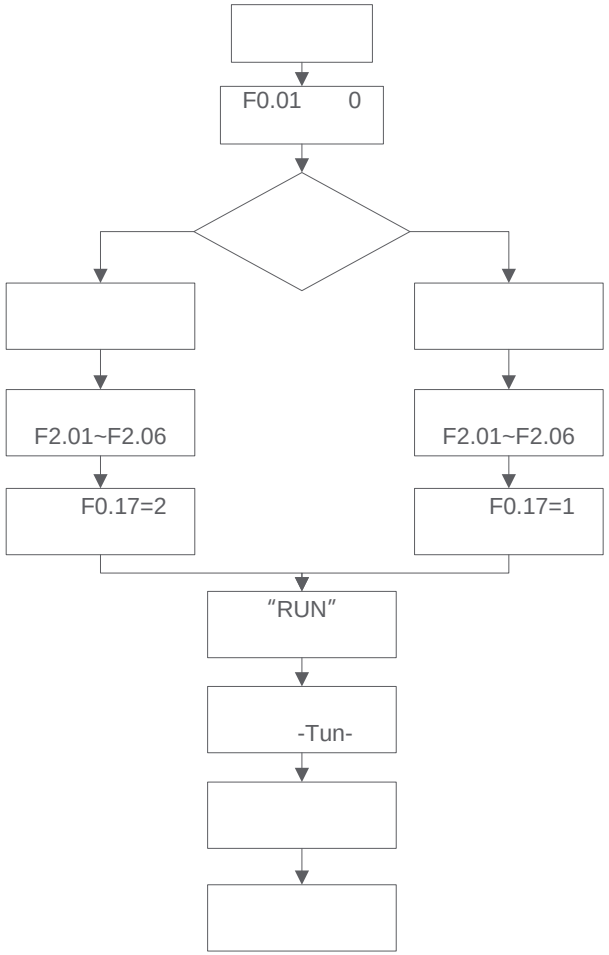
R1 ئ ḭ ' ◖ y̰ X ج Ḍ گِ R2 ψ ɨ ȁ ⌋ '

ج ↑ ȍ ⌊ y̰ Xm ⊃ ৲ ɔ ╚ Io ̈A ⌊ ̈Ω Ẓ

˙ ৲F2.07 F2.08 F2.09 F2.10 ⊃ F2.11 F2.06 ḡ ' ج ̈Ω ⌋ ɑ ̀A

̈Ω ⌋ F0.17 ₽ Ö ɑ ₽ ⌋ 0

̈Ω ج ḅ g ̈A χ



g 7-6-2 ̈Ω Ö ╚ g

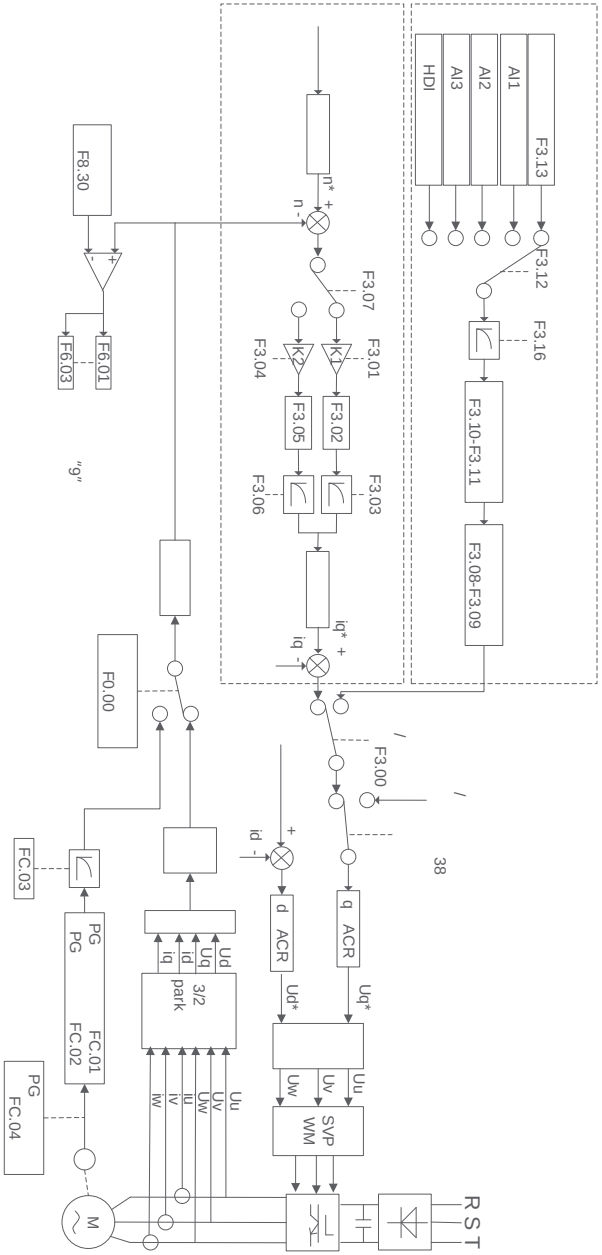
⚠	*1 ̈Ω ̀H ọ ء Ł W ژ ৲ ̈Ω ̈ ̈Ω ˊ* *2 ̈Ω ̈Ω STOP ج ⌋ ̈Ω H Ȁ ⌋ ̈Ω ̈Ω ̈Ω ̈Ω* *3 ̈Ω ̈Ω ḅ ' ̀ ȁ Ẃ ̈Ω گّ ڈ E.tE ̀H ا Ă ن g ڈ گّ ڈ ⌋ ت ⌋ ⌋ W ̀A ̈Ω ̈Ω*

7.6.3

F0.01			0 χ 1 χ 2 χ	0
F0.17			0 χ 1 χ 2 χ	0
F2.00			0 χ T 1 χ P	0
F2.01			(0.4 Ḱ 999.9) kW	
F2.02			0 Ḱ	
F2.03			(0.1 Ḱ 999.9)A	
F2.04			(1.00 Ḱ 300.00)Hz	
F2.05			2 Ḱ 24	4
F2.06			(0 Ḱ 60000)RPM	1440RPM
F2.07	%R1		0.00 Ḱ 50.00	
F2.08	%X		0.00 Ḱ 50.00	
F2.09	%R2		0.00 Ḱ 50.00	
F2.10	%Xm		0.0 Ḱ 2000.0	
F2.11			(0.1 Ḱ 999.9)A	

7.7

7.7.1 /



F3.00 Ḱ F3.07 ƥ ˙ Ȧ Ã õ ̃

ƥ ˙ Ȧ Ã Φ ỷ ذ н æ ш P ⊃ ˋ ̀H ژ I ă ̃ ̀

˙ ỷ φ Ẓ ≠ ớ

1 ỷ ذ н ASR ═ ă KP æ ш P Ti ˋ ̀H ژ I

ˋ ̀H ژ Φ 0 F3.02 ï 0.000s F3.05 ï 0.000s ̀H ̈ ̀ ˋ Ă ỷ ⊥

⊥ æ ذ н

2 ỷ ذ н ASR æ ш P ⊃ ˋ ̀H ژ I ̃Ẓ

ш æ ш P ̀ ⊥ ⊥ ̃ φ Ẓ ψ ЧP ƶ ⊥ ⊥ ˜ ⊥ ̊̊

ˋ ̀H ژ I ̀ ⊥ ⊥ ̃ φ Ẓ ψ ЧI ⊥ ⊥ ∧ ذ ƶ ˜ ⊥ Ẃ ⊁ ذ ̃Ẓ

æ ш P З - ⊥ ⊥ ˙ ш ƶ P ψ ǂ ذ ˋ ̀H ژ IÆ ⊥ ⊥ ŋ õ ̀

φ Ẓ ≠ ớ ∧ ذ ƶ

⚠	*PI ̃Ẓ Ẹ ̀H ⊥ ⊥ ƥ ̀ V ˙ ƺ ⊥ ̃ẴẴ ƥ ' õ ᵘ ˙ ̃ẴẴ ˙ F ĩ ƥ ỷ ∧ ذ ں ⊥ ⊥ W ⊥ ˙ ↑ ̃ ⊥ ⊥ ̈ Ȧ ذ ̃ẴPI ̃Ẓ ̊ d*

3 ỷ ذ н ASR ƥ ƺ / Ḥ ƒ PI ̃Ẓ ذ ̃Ẓ

⊥ ⊥ ƺ Ḥ ذ õ ̀ φ Ẓ ⊥ Φ ASR ̊ ⊥ ' Ẃ ⊥

∧ ƥ Ḥ ⊥ ̀H ⊥ ƺ ̃ φ Ẓ ≠ ớ ƺ æ ш P ⊃ ̊̊ ˋ ̀H ژ I

ƥ ̊ ̂ ذ ̃Ẓ ỷ ذ н ̃Ẓ χ

1 ̊ ⊥ ' F3.07

2 ذ ̃Ẓ ƺ ̀H æ ш F3.01 ⊃ ˋ ̀H ژ F3.02 З - ⊥ ⊥ ⊥ ̃

φ Ẓ ≠ ớ Ḅ

3 ذ ̃Ẓ Ḥ ̀H æ ш F3.04 ⊃ ˋ ̀H ژ F3.05 З - Ḥ ⊥ ̀H ̈ ̃ φ

Ẓ ≠ ớ Ḅ

4 ỷ ذ н ASR ژ ⊥ ȧ ̈ н ̂ ̊ ⊥ ̃ ⊥

F3.03 F3.06 ̊ ̃ ĩ ASR1 ⊃ ASR2 ژ ̈ н ̀H ژ Ẃ ̃Ẓ

ỷ ̃ ̊ ̀H ت Ỵ χ

⚠	*1. ƥ ̊ ⊥ ̊ ̣ DX1 Ḱ X6 HDI ỷ / ̃ ̊ ت Φ F5.01 Ḱ F5.07 38 Ẋ Φ Ẹ ˙ Ȧ Ã ˙ 2. ƥ PLC ژ ⊥ ∧ ⊥ ≠ ỷ ˙ Ȧ Ã ̊ ˙ ̃ ˙ 3. Ẹ ژ ʔ ȳ ᵘ ̀H Ẹ ˙ ĩ ̃ ˙ Ȧ Ã ̈ ̊ ỷ ˙ Ȧ Ã W ȳ*

7.7.2

н ̃Ẓ ƥ ̊ χ

F0.00	˙ Ȧ Ã		0 χ ̀ PG ˙ 1 χ PG ˙ 2 χ VF ˙ 3 χ PG-VF ˙	0
F3.00	ỷ / ̃ ˙ Ȧ Ã		0 χ ỷ ˙ Ȧ Ã 1 χ ̃ ˙ Ȧ Ã	0
F3.01	ỷ ⊥ æ ш 1 ASR1-P		0.1 Ḱ 200.0	20.0
F3.02	ỷ ⊥ ˋ ̀H ژ 1 ASR1-I		0.000~10.000s	0.200s
F3.03	ASR1 ژ ̈ н		0 Ḱ 8 Ẓ 0 Ḱ 28/10ms	0
F3.04	ỷ ⊥ æ ш 2 ASR2-P		0.1 Ḱ 200.0	20.0
F3.05	ỷ ⊥ ˋ ̀H ژ 2 ASR2-I		0.000 Ḱ 10.000S	0.200s
F3.06	ASR2 ژ ̈ н		0 Ḱ 8 Ẓ 0 Ḱ 28/10ms	0
F3.07	ASR1/2 ̊ ⊥ '		0.0% Ḱ 100.0%	10.0%
F3.08	̃ ˙ ̀H ̃ ỷ ں Ö		0.0% Ḱ +100.0%	100.0%
F3.09	̃ ˙ ̀H ̃ ỷ ں Ö		0.0% Ḱ +100.0%	100.0%
F3.10	̃ ̃ ں Ö		0.0% Ḱ +300.0%	180.0%
F3.11	˙ ̃ ں Ö		0.0% Ḱ +300.0%	180.0%
F3.12	̃ ⊥		0 χ ̃ Φ ̃ (F3.13) 1 χ AI1 2 χ AI2 3 χ AI3	0

			4 χ HDI	
F3.13			-300.0% Ḱ +300.0%	0.0%
F3.14	ů →		0% Ḱ +300.0%( )	100.0%
F3.15	ů	ả H	0 Ḱ 1000ms	0
F3.16		H	0 Ḱ 65535ms	0
F8.30		Ö	0.00 Ḱ 300.00Hz	0.50Hz

7.8 V/F

7.8.1 V/F

V/F V/F

V/F Ã

V/F´Y Ã V/F´Y

V/F´Y

F4.00 V/F´Y

0 χ V/F´Y ψ

1 χ 2 V/F´Y ψ

2 χ 1.7 V/F´Y ψ

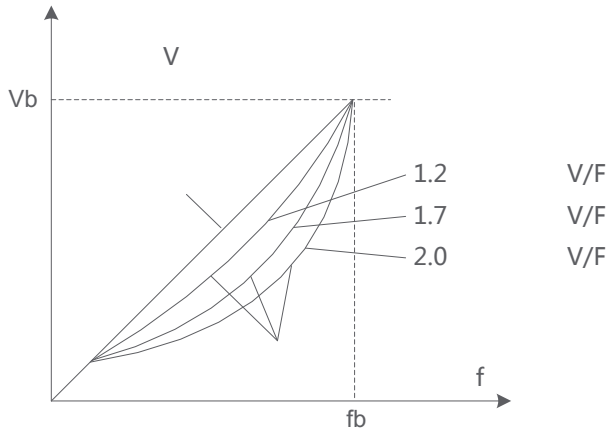
3 χ 1.2 V/F´Y ψ

4 χ V/F´Y A V/F´Y

V/F´Y

V/F´Y

2 Á 3 Á 1.2 1.7 2.0 V/F´Y

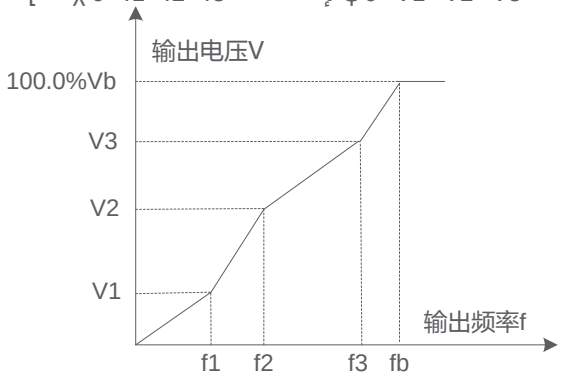


g 7-8-1 V/F´Y

V/F´Y A V/F´Y 5 V 0Hz 0V

f1 V1 f2 V2 f3

V3 χ 0 f1 f2 f3 ψ 0 V1 V2 V3



g 7-8-2 A V/F´Y

⚠	

V/F Ã

V/F

1 χ

V/F H 2.0 V/F´Y

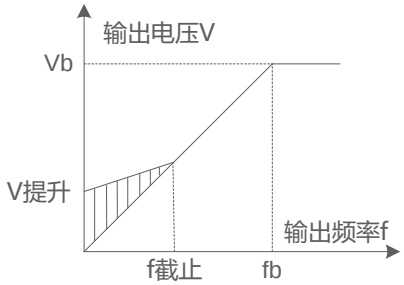
F4.07 Vb 2

[illegible]

F4.08 [illegible] fb [illegible]

[illegible] V/F [illegible]

[illegible]



[illegible] 7-8-3 [illegible]

⚠	1 [illegible] 2 [illegible]

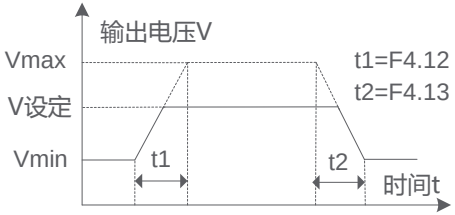
2

[illegible]

⚠	1 [illegible] 2 [illegible] 3 [illegible]

3 V/F

[illegible] V/F [illegible] V/F [illegible]



[illegible] 7-8-4 V/F [illegible]

⚠	V/F [illegible]

4 [illegible]

V/F [illegible]

[illegible] 0 [illegible] 300.0% [illegible] 100% [illegible] /60

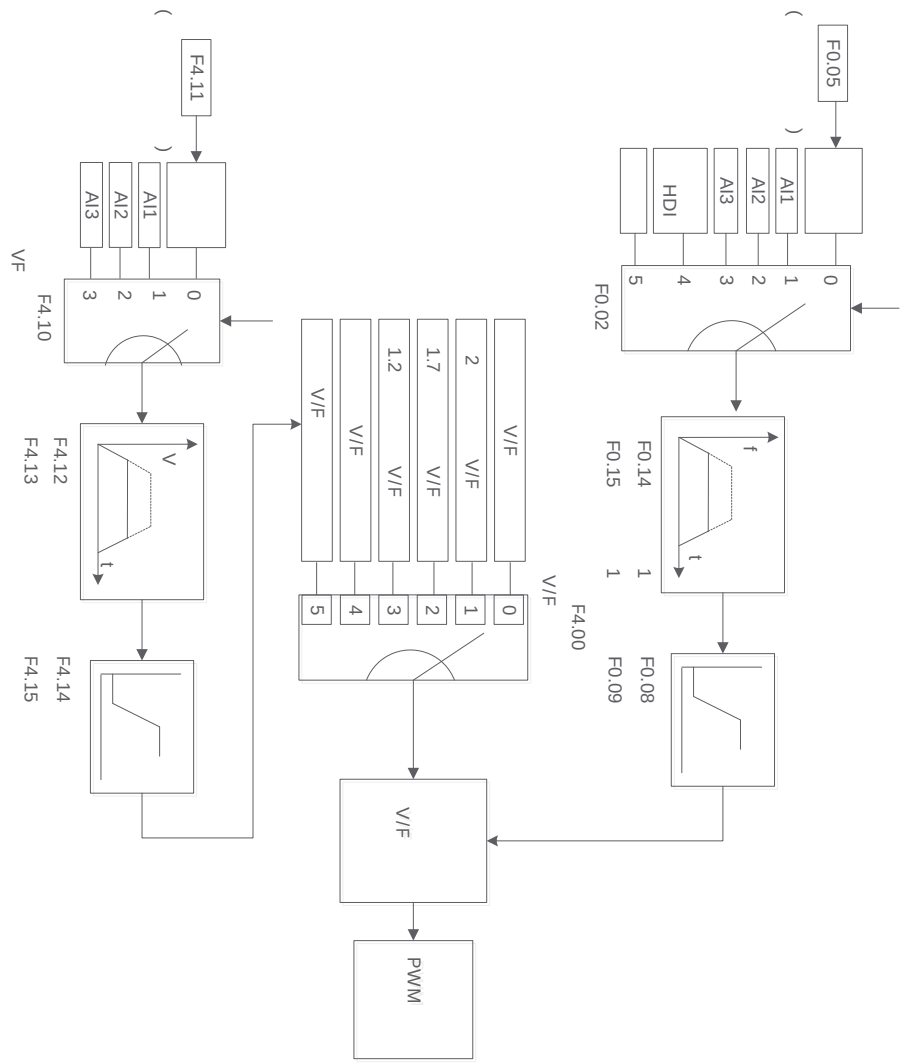
⚠	[illegible]

5 [illegible]

[illegible] V/F [illegible]

⚠	[illegible]

[illegible] V/F [illegible] V/F [illegible]



7.8.2

F0.00			0 χ PG	0

			1 χ PG 2 χ PG-VF 3 χ PG-VF	
F0.02			0 χ (F0.05) 1 χ AI1 2 χ AI2 3 χ AI3 4 χ HDI 5 χ	0
F0.07			(F0.08) 300.00Hz	50.00 Hz
F0.08			F0.09 F0.07	50.00 Hz
F0.09			0.00 F0.08	0.00 Hz
F0.14	1		0.0 6000.0 s	
F0.15	1		0.0 6000.0 s	
F2.02			0	
F2.04			1.00 300.0 Hz	
F4.00	V/F		0 χ V/F 1 χ 2 V/F 2 χ 1.7 V/F 3 χ 1.2 V/F 4 χ V/F (F4.01 F4.06) 5 χ V/F (F4.10 F4.15)	0
F4.01	V/F 3		F4.03 F0.07	0.00 Hz
F4.02	V/F 3		F4.04 100.0	0.0

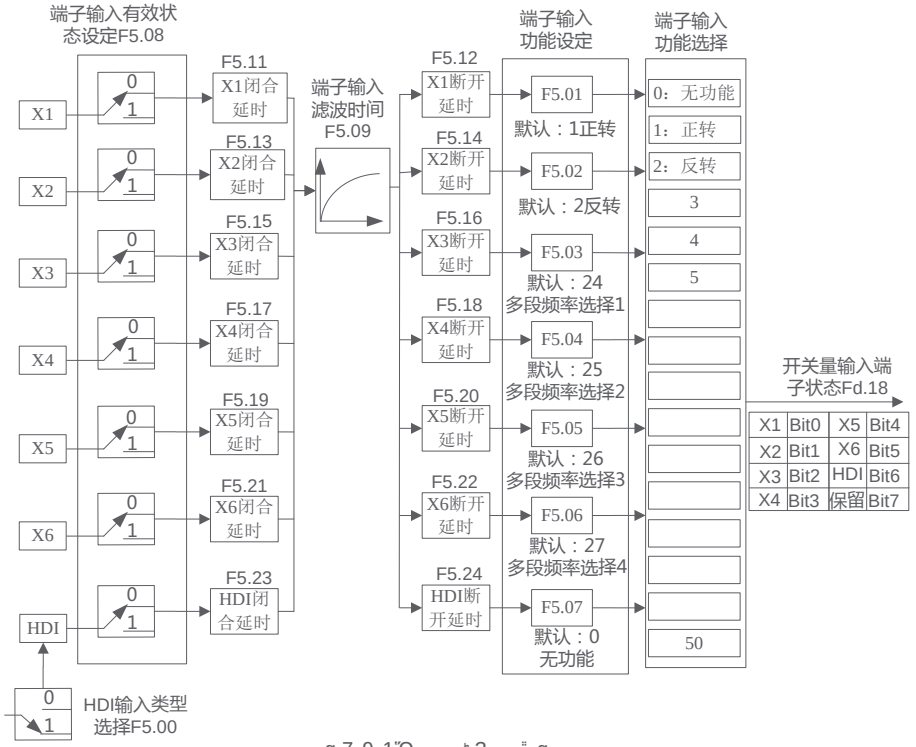
F4.03	V/F ع ' 2		F4.05 Ḱ F4.01	0.00 Hz
F4.04	V/F 2		F4.06 Ḱ F4.02	0.0
F4.05	V/F ع ' 1		0.00 Hz Ḱ F4.03	0.00 Hz
F4.06	V/F 1		0 Ḱ F4.04	0.0
F4.07	ج		0.0 0.1 Ḱ 30.0	0.0
F4.08	ج Ä ع		0.0 Ḱ 50.0 (g ع ' F0.10)	10.0
F4.09			0 χ Ă 1 χ	0
F4.10	VF ژ		0 χ ج ϕ F4.11 1 χ AI1 ϕ 2 χ AI2 ϕ 3 χ AI3 ϕ χ 100% Z ئ	0
F4.11	ج ϕ Ö		0.0 Ḱ 100.0 ئ	100.0
F4.12	ш `H ژ		(0.1 Ḱ 10.0)s	5.0 s
F4.13	° `H ژ		(0.1 Ḱ 10.0)s	5.0 s
F4.14	ژ ω ج		F4.15 Ḱ 100.0 ع H ئ	100.0
F4.15	ژ ω		0.0 Ḱ F4.14 ع H ئ	0.0
F8.26	○ ŷ ш		0.0 Ḱ 300.0	100.0
F8.27	○ ŷ ں		0.0 Ḱ 250.0	200.0
F8.28	○ ŷ `H ژ Ẃ Ą		(0.1 Ḱ 25.0)s	2.0 s
F8.32	˙ ى ۱ Ą		0 Ḱ 255	10

7.9 Ą ژ ٦

7.9.1

Ą ژ ٦ Ḍ 6ث ۱ Ą ژ ٦ Ḍ = 1ث ˙ ژ ٦ Ḍ ژ

٦ Ḍ X1 Ḱ X6 HDI Ţ b g, Ä χ



g, 7-9-1 Ą ژ ٦ g,

⁝ گ `ϕ F5.01 Ḱ F5.07 Ö ˙ ˙ X1 Ḱ X6 HDI

ϕ Ö ð ˊ 7.1

ˊ 7.1 ^ ژ ٦ ˊ

0	ṇ	Ă Æ ۱ Ḍ ϕ " ṇ " گ ئ
	ج FWD	ں ۱ Ḍ ˙ ع H ج = ج
	ج REV	

3	[illegible]	[illegible] F8.06~F8.07
	[illegible]	
	[illegible]	[illegible] F5.10 [illegible]
	[illegible] RESET [illegible]	[illegible] STOP [illegible]
7	[illegible]	[illegible] "E.EF" [illegible]
8	[illegible]	[illegible]
	[illegible]	[illegible]
10	[illegible]	[illegible] F1.05 [illegible]
	[illegible]	[illegible] F1.06 [illegible] F1.08 [illegible] F1.09 [illegible]
	[illegible]	F1.05 [illegible]
	[illegible] UP	[illegible] F0.12 UP/DN [illegible]
	[illegible] DN	
	[illegible]	[illegible]
	[illegible]	
17	[illegible]	
18	[illegible]	[illegible] AI1 AI2 AI3 [illegible] HDI [illegible]
	[illegible] AI1	
20	[illegible] AI2	

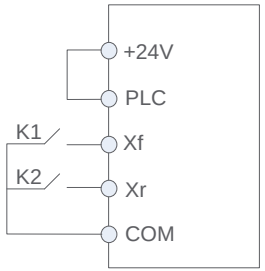
1	[illegible] AI3	
	[illegible] HDI	
	[illegible]	[illegible]
	[illegible] 1	[illegible] 16 [illegible] 15 [illegible]
	[illegible] 2	
	[illegible] 3	
27	[illegible] 4	
28	[illegible] 1	[illegible] 4 [illegible] 4 [illegible]
	[illegible] 2	
30	[illegible] 1	[illegible] 16 [illegible] 16 [illegible]
	[illegible] 2	
	[illegible] 3	
	[illegible] 4	
	[illegible]	[illegible]
	[illegible]	[illegible]
	[illegible]	[illegible]
37	[illegible]	PID [illegible]
38	[illegible]	[illegible]
	PLC [illegible]	PLC [illegible]
40	PLC	PLC [illegible]
	PLC [illegible]	PLC [illegible]
	[illegible]	[illegible]
	[illegible]	[illegible]
44~50	[illegible]	[illegible]

7.9.2

[illegible]

F0.01	u		
F5.10		0	
F5.01	X1		FWD
F5.02	X2		REV

K1	K2	
0	0	
0	1	
1	0	
1	1	



7-9-2 1

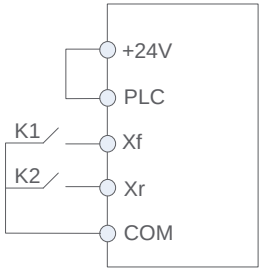
1 2

X1 X2

F0.01	u		
F5.10			2
F5.01	X1		“ ”
F5.02	X2		“ ”

K1 K2

K1	K2	
0	0	
0	1	
1	0	
1	1	



7-9-3 2

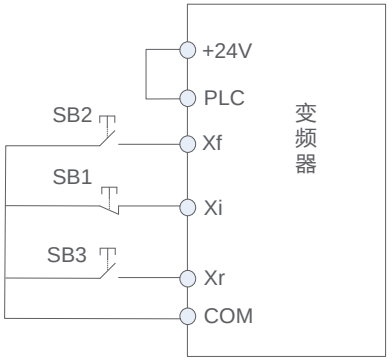
2 1

X3 X1 X2

F0.01	u		
F5.10			1
F5.01	X1		FWD
F5.02	X2		REV
F5.03	X3		

SB1 SB2 SB3

SB1 SB1 SB2 SB3



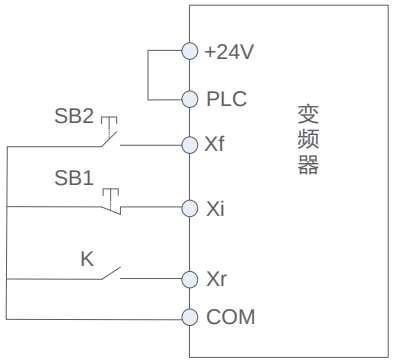
7-9-4 1

3 2

X3 X1 X2

F0.01	u		
F5.10			2
F5.01	X1		“ ”
F5.02	X2		“ ”
F5.03	X3		

b g,"A Î · Ã p SB1 ڑ ↑ õ SB2 ị н ,K Ă
À ị н ج K ڑ ị н ج ψ SB1 Ă À ڑ ị н ȳ Ẃ k ⊃
o ء ʒ SB1 ڑ ↑ õ SB2 u ,, p ڑ Ă ۱ ۿ



K	运行指令
0	正转
1	反转

g,7-9-5 ۱ Ã ج Ã2

7.9.3

н "Ọ b ´ χ

F0.01	u		0 χ ج · 1 χ ۱ Ḍ · 2 χ g ·	0
F5.00	HDI ڑ ۲ ۱ ʒ		0 χ HDI ج · ڑ ۲ 1 χ HDI À н ڑ ۲	0
F5.01	X1 ۱ Ḍ		1 χ ج FWD 2 χ ج REV 5 χ ۱ Ã ج ·	
F5.02	X2 ۱ Ḍ			
F5.03	X3 ۱ Ḍ			
F5.04	X4 ۱ Ḍ			
F5.05	X5 ۱ Ḍ			
F5.06	X6 ۱ Ḍ			27
F5.07	HDI ۱ Ḍ			0
F5.08	ڑ ۲ ۱ Ḍ ω ۿ ↑ õ ϕ X1 Ḱ X6 HDI		· ϕ χ 0 χ Ẃ ڑ ω ۿ 1 χ ڑ Ă À ω ۿ	00

			LED BIT0 Ḱ BIT3 χ X1 Ḱ X4 **LED** BIT0 Ḱ BIT1 χ X5 Ḱ X6 BIT2 χ HDI BIT3 χ ʒ	
F5.09	ڑ ۲ ۱ Ḍ ۔ ʼH ڑ		(0 Ḱ 1000)ms	10 ms
F5.10	۱ Ḍ · Ã		0 χ ۱ Ã · Ã1 1 χ ۱ Ã · Ã2 2 χ ۱ Ã · Ã1 3 χ ۱ Ã · Ã2 4 χ ʒ	0
F5.11 F5.24	X1~X6 HDI ۱ Ḍ ڑ ⊃ Ă À ả ʼH ʼH ڑ		(0.000 Ḱ 50.000)s	0.000 s

7.10 "Ọ ڑ

7.10.1

^ ڑ ۱ Ḍ Y HDO À ث ۷ ll ڑ ۱ Ḍ ⊃ ۸ н ڑ ۱ Ḍ Ro ئا
p ۿ ڑ ۱ Ḍ ت ب ˘ b χ

⁝ ڳ ۾ Y HDO Ro ₿ Ö ŏ ŵ ´Y Ć

9	إ ʰ ʲ	إ ʰ ʃ ʲ ↑ õ ˋH ژ ʒ τ ч ǎ 2 χ ḡ V/F Ã Ẹ ژ إ ' 0ˋH ژ ʒ ψ V/F Ã Ẹ ت إ ' F8.30 Ẕ إ ' ˋH ژ ʒ
10	ʒ	ʒ
11	ʒ	ʒ
12	৸ ˇ PLC ڳ ج ǎ	৸ ˇ PLC ڳ ǎ ژ ʒ
13	PLC ǐ ɤ ǎ	৸ ˇ PLC ǐ ɤ ǎ ژ ʒ
14	إ ں ˙	إ إ ' ں ˆ إ ' ں F0.08 ǎ إ إ ' ں ˅ إ ' ں F0.09 ژ ʒ
Â ţ 15	? إ ʰ a ˊ ţ ǎ RDY	ǐ ʒ . ژ ʒ ũ ڿ ˝ + إ ʰ إ ڼ ڿ ڭ ڑ ৸ · Ẃ إ ʰ ৸ Ḍ ڼ ڿ ৸ ʸ ᵘ
16	إ ʰ ڿ ڭ	إ ʰ ˌ ʎ ڿ ڭ ˝ ژ ʒ
17	ʒ	ʒ
18	ʒ	ʒ
19	ج ں ˙	ج ژ ʒ ج ں ˙ Ö ǎ ˙ ج ں ˙ Ö ˋH ژ ʒ
20	إ ʰ ج ৸ Ḍ	إ ʰ ڳ ˊA ₿ ˊA ˋH ژ ʒ Ẕ ʒ
21~50	ʒ	ʒ

7.10.2

ʰ ˝Ω ḃ ˊ χ

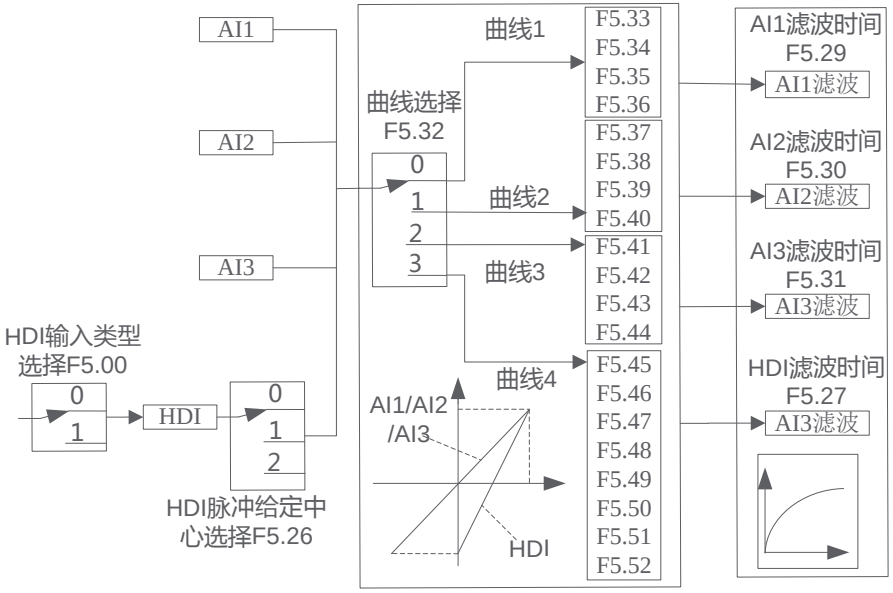
F0.01	ᵘ		0 χ ج ˙ 1 χ ৸ Ḍ ˙ 2 χ ḡ ˙	0
F6.00	HDO ژ ʒ ৸ ʒ		0 χ À ث ڠ ‖ ح ˙ ژ ʒ F6.18 Ǵ F6.19 ₿ 1 χ À ث ڠ ‖ ژ ʒ F6.02 ₿	0

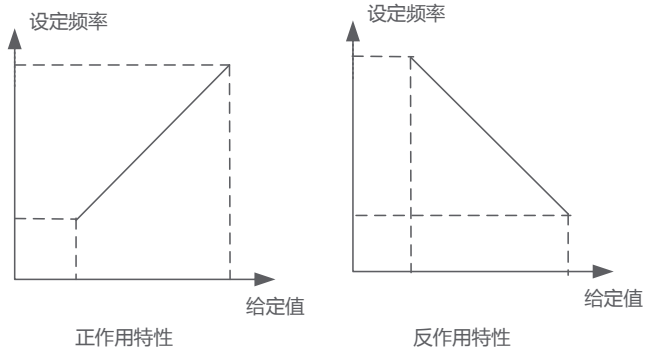
F6.01	Y			0
F6.02	HDO		0 χ RUN 1 χ FAR 2 χ FDT1 3 χ FDT2 4 χ OL 5 χ LU 6 χ EXT 7 χ FHL 8 χ FLL 9 χ 10 χ X1 11 χ X2 12 χ PLC 13 χ PLC 14 χ 15 χ RDY 16 χ 17 χ 18 χ 19 χ 20 χ 21 Ḱ 50 χ	0
F6.03	RO			
F6.04	Y HDO R0		0 χ 1 χ LED χ BIT0 Ḱ BIT3 χ Y HDO RO LED χ	00
F6.05 F6.10	Y HDO Ro		(0.000 Ḱ 50.000)s	0.000 s

7.11

7.11.1

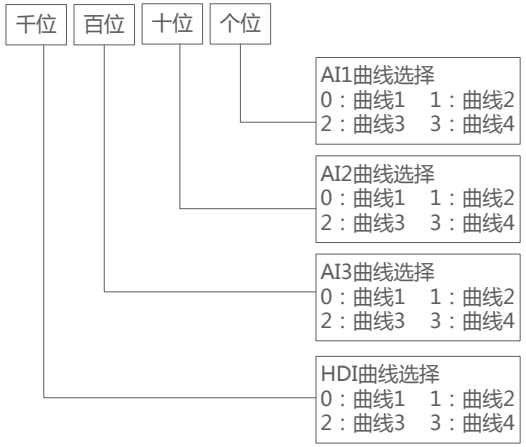
F5.33 Ḱ F5.36 F5.37 Ḱ F5.40 F5.41 Ḱ F5.44 F5.45 Ḱ F5.52





g,7-11-2 ژ، ا ' ء ó´Y ا

ژ ؟A 100 `H Ę 10V ã 20mA ψ ˙ ا ' P 100 `H Ę F7.20
ω ژ ؟ ˙ ا ' ـ `H ژ Ẃ"Ω Ł F5 ا ب "
F5.32 ژ ؟ ˙ ژ ؟´Y ا ḃ g,"A



g,7-11-3 ا ' ٨ ´Y ا g,

æ ـ ˋ ' χ

1 Æ ٩ Ḍ ژ ؟ ˙ ʒ ˆ Φ ا Φ ا ' ψ
2 ژ ؟ ʒ 1kHz Ḱ 20kHz ψ

3 ا 1kHz ژ ؟ ʒ Ę Φ ا ' 50Hz 8kHz ژ ؟ ʒ Ę Φ ا ' 10Hz 12kHz ژ ؟ ʒ Ę Φ ا ' 40Hz 20kHz ژ ؟ ʒ Ę Φ ا ' 5Hz ψ

⁞ ا "Ω Φ ا ḃ χ

1 F0.02 ï 4 Æ ٩ Ḍ HDI ٨ ا ' ٨ ψ
2 F5.32 ï 3000 HDI ´Y ا 4 ψ
3 F5.25 ï 20.0kHz Φ ا ω ˙ ژ ؟ ا ' 20kHz ψ
4 F5.45 ï 20ö20Ö100 ï 100.0 Φ ا ´Y ا 4 ω ٨ 20kHz 20kHz F5.25 ˋ ψ
5 F5.46 ï 5.00HzöF0.07*100 =10.0% Φ ا ω ٨ 20kHz ˙ ʒ Ę Φ ا ' ˋ ψ
6 F5.47 ï 12ö20Ö100 ï 60.0 Φ ا ´Y ا 4 ٢ 2 ٨ 12kHz 20kHz F5.25 ˋ ψ
7 F5.48 ï 40.00HzöF0.07*100 =80.0% Φ ا ´Y ا 4 ٢ 2 ٨ 12kHz ˙ ʒ Ę Φ ا ' ˋ ψ
8 F5.49 ï 8ö20Ö100 ï 40.0 Φ ا ´Y ا 4 ٢ 1 ٨ 8kHz 20kHz F5.25 ˋ ψ
9 F5.50 ï 10.00HzöF0.07*100 =20.0% Φ ا ´Y ا 4 ٢ 1 ٨ 8kHz ˙ ʒ Ę Φ ا ' ˋ ψ
10 F5.51 ï 1ö20Ö100 ï 5.0 Φ ا ´Y ا 4 ω ٨ 1kHz 20kHz F5.25 ˋ ψ
11 F5.52 ï 50.00HzöF0.07*100 =100.0% Φ ا ω ٨ 1kHz ˙ ʒ Ę Φ ا ' ˋ ψ

⚠	1. ḥ ' Ä ´Y ɨ 4 ℘ 2 ʎ ϕ ɹ ѡ ʒ ʎ F5.47 ï F5.45 „ ɲ Ą̈ F5.48 ï F5.46 ℘ 2ϕ ɹ ṅ ѿ ℘ 2 ʎ ℘ 1 ʎ F5.49 ï F5.47 „ ɲ Ą̈ F5.50 ï F5.48 ℘ 1ϕ ɹ ṅ ѿ ℘ 1 ʎ ѡ ʎ F5.51 ï F5.49 „ ɲ Ą̈ F5.52 ï F5.50 ѡ ʎ ϕ ṅ ѿ ´Y ɨ 1ϕ ɨ 2. ´Y ɨ 1 2 3 ⊃ 4 ʎ Ẓ ڳ ḥ ĩ 0.0 Ḱ 100.0 ₵ ʎ Ẓ 0.0 Ḱ 300.0 ḷ ' ʎ ʊ ḥ ĩ 0.0 Ḱ 100.0

7.11.3

ʜ ̈Ọ ḥ ˊ χ

F5.00	HDI ژ ʊ ɨ ʒ		0 χ HDI ڃ ˙ ژ ʊ 1 χ HDI Ã ʜ ژ ʊ	0
F5.25	HDI ѡ ʒ ژ ʊ ˙ ḷ '		(0.1 Ḱ 100.0)kHz χ HDI ɨ Ḍ ڃ ˙ ژ ʊ ̀H õ ѿ	10.0 kHz
F5.26	HDI ˙ ʎ Ọ ℘		0 χ ṅ Ọ ℘ 1 χ õ Ọ ℘ Ọ ℘ F5.25 /2 ḷ ' Ọ ℘ ' / ¡ f f •œ°a@0A@€ P 2 χ õ Ọ ℘ Ọ ℘ F5.25 /2 ḷ ' Ọ ℘ ق	
F5.27 ˙ ʎ ◒ ̀H ژ			(0.00 Ḱ 10.00)s	0.05 s
F5.29	AI1 ◒ ˙ ʎ	ó b˜–" ft	½ € #2 $=• À ° @ ` `	

			0 χ ΄Y ɨ 1 1 χ ΄Y ɨ 2 2 χ ΄Y ɨ 3 3 χ ΄Y ɨ 4 LED ษ χ AI3΄Y ɨ 0 χ ΄Y ɨ 1 1 χ ΄Y ɨ 2 2 χ ΄Y ɨ 3 3 χ ΄Y ɨ 4 LED ษ χ HDIح ˙ ژ ح ΄Y ɨ 0 χ ΄Y ɨ 1 1 χ ΄Y ɨ 2 2 χ ΄Y ɨ 3 3 χ ΄Y ɨ 4	
F5.33	΄Y ɨ 1ϕ ج ʃ		F5.35 Ḱ 110.00	100.00
F5.34	΄Y ɨ 1ϕ ج ʃ Z̧ گ		إ ' ʃ χ 0.0 Ḱ 100.00 Fmaxψ ج χ 0.0 Ḱ 300.00 Teψ	100.00
F5.35	΄Y ɨ 1ϕ ʃ		0.00 Ḱ F5.33	0.00
F5.36	΄Y ɨ 1ϕ ʃ Z̧ گ		F5.34	0.00
F5.37	΄Y ɨ 2ϕ ج ʃ		F5.39 Ḱ 110.00	100.00
F5.38	΄Y ɨ 2ϕ ج ʃ Z̧ گ		F5.34	100.00
F5.39	΄Y ɨ 2ϕ ʃ		0.0 Ḱ F5.37	0.00
F5.40	΄Y ɨ 2ϕ ʃ Z̧ گ		F5.34	0.00
F5.41	΄Y ɨ 3ϕ ج ʃ		F5.43 Ḱ 110.00	100.00

F5.42	΄Y ɨ 3ϕ ج ʃ Z̧ گ		F5.34	100.00
F5.43	΄Y ɨ 3ϕ ʃ		0.0 Ḱ F5.41	0.00
F5.44	΄Y ɨ 3ϕ ʃ Z̧ گ		F5.34	0.00
F5.45	΄Y ɨ 4ϕ ج ʃ		F5.47 Ḱ 110.00	100.00
F5.46	΄Y ɨ 4ϕ ج ʃ Z̧ گ		F5.34	100.00
F5.47	΄Y ɨ 4 ع 2 ʃ		F5.49 Ḱ F5.45	100.00
F5.48	΄Y ɨ 4 ع 2 ʃ Z̧ گ		F5.34	100.00
F5.49	΄Y ɨ 4 ع 1 ʃ		F5.51 Ḱ F5.47	0.00
F5.50	΄Y ɨ 4 ع 1 ʃ Z̧ گ		F5.34	0.00
F5.51	΄Y ɨ 4ϕ ʃ		0.0% Ḱ F5.49	0.00
F5.52	΄Y ɨ 4ϕ ʃ Z̧ گ		F5.34	0.00

7.12 ژ

7.12.1

ژ ɨ Ḍ AO1 AO2 ح ˙ ژ ɨ Ḍ HDO ئ ḏ ษ
ژ ɨ Ḍ ʊ ب ˝ ḍ χ

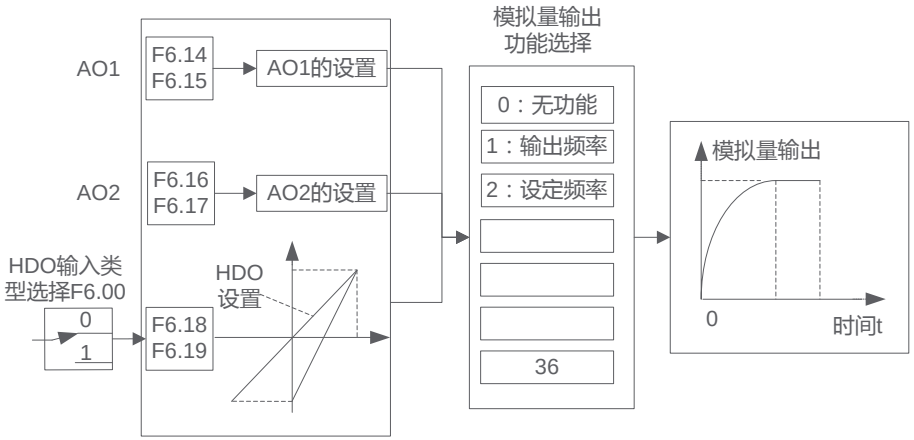


图7-12-1 模拟量输出功能选择

AO1 和 AO2 的输出信号可以通过 F6.11 和 F6.13 来选择，HDO 的输出信号由 F6.18 来选择，如表 7.3

表 7.3 模拟量输出功能选择

0	无	无
	输出频率	0 对应最大输出频率
	设定频率	0 对应最大设定频率
	稳定后设定频率	0 对应最大设定频率
	电流	0 对应 2倍额定电流
	输出电压	0 对2倍额定电压
	输出电压	0 对2倍额定电压
7	输出电流	0 对3倍额定电流
8	输出转矩	0 对2倍额定转矩
	输出功率	0 对1.2倍额定功率
10	直流母线电压	0 对800V
	AI1	0 对应
	AI2	0 对应
	AI3	0 对10V
	HDI 脉冲输入	0 对应 脉冲输入
15 对 36	保留	保留

AO1 和 AO2 的输出信号可以通过 F6.14 和 F6.15 来选择，100 对应 10V 或 20mA，

其中 F6.14 和 F6.15 的设定值为 0 时，AO 输出 0V 对应的模拟量输出为 0，

F6.14 和 F6.15 的设定值为 1 时，AO 输出 0V 对应的模拟量输出为 10V。

F6.14 和 F6.15 的设定值为 2 时，AO 输出 0V 对应的模拟量输出为 7.24 或 7.25。

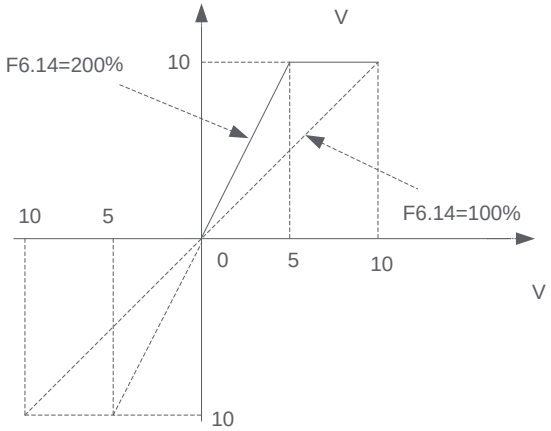


图7-12-2 模拟量输出

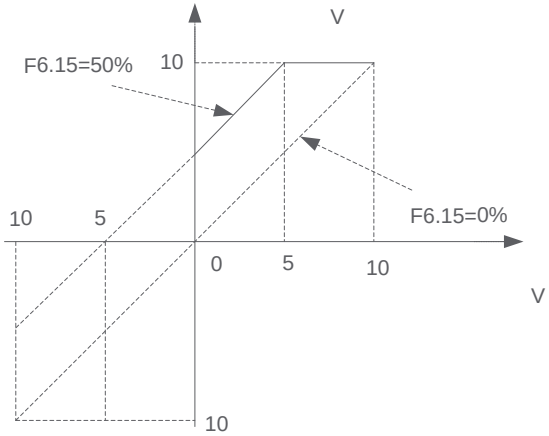


图7-12-3 模拟量输出

F6.00	HDO ژ ۱ ڇ		0 χ Ã ٺ ٺ ‖ ح ˙ ژ F6.18 Ḱ F6.19 ϕ 1 χ Ã ٺ ٺ ‖ ژ F6.02 ϕ	0
F6.11	AO1 ژ			0
F6.12	AO2 ژ		0 χ ṇ 1 χ ژ ا ' 0 Ḱ ω ᶻ ا ' 2 χ ϕ ا ' 0 Ḱ ω ᶻ ا ' 3 χ ά ¡ ⅄ ا ' 0 Ḱ ω ᶻ ا ' 4 χ چ 0 Ḱ ω ᶻ چ 5 χ ژ ⅃ 0 Ḱ 2*Iei 6 χ ژ ⅃ 0 Ḱ 2*Iem 7 χ ژ چ 0 Ḱ 3*Tem 8 χ ژ ' 0 Ḱ 2*Pe 9 χ ژ 0 Ḱ 1.2*Ve 10 χ ⅃ 0 Ḱ 800V 11 χ AI1 12 χ AI2 13 χ AI3 14 χ HDI 15 Ḱ 36 χ ʒ	0
F6.13	HDO ح ˙ ژ			0
F6.14	AO1 ɯ		0.0 Ḱ 200.0	100.0
F6.15	AO1 ٻ ə ›		-100.0 Ḱ 100.0	0.0
F6.16	AO2 ɯ		0.0 Ḱ 200.0	100.0
F6.17	AO2 ٻ ə ›		-100.0 Ḱ 100.0	0.0
F6.18	HDO ω ᶻ ژ ˙ ا '		0.1 kHz Ḱ 100.0 kHz	10.0 kHz
F6.19	HDO ˙ ژ Ọ ᵖ		0 χ ṇ Ọ ᵖ 1 χ ω̃ Ọ ᵖ Ọ ᵖ F6.18	0

			/2 ا ' Ọ ᵖ 2 χ ω̃ Ọ ᵖ Ọ ᵖ F6.18 /2 ا ' ᶻ Ọ ᵖ	

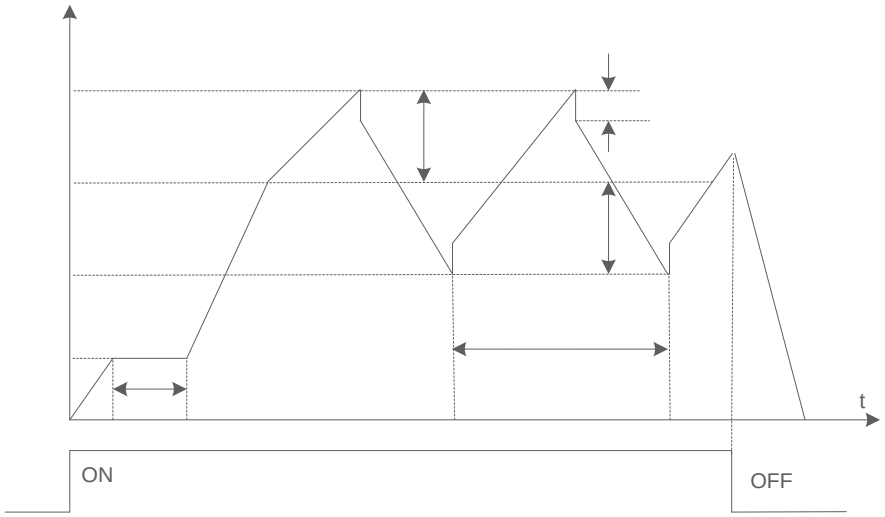
7.13 ا

7.13.1

ا ᴴ ا ⅄ ⅃ ⅄ ⅄ ⅃ ⅃ ʃ ĩ
ا ᴴ ژ ا ' ϕ ا ' Ọ ا ' ɲ Ḣ ژ ب څ ḅ ɡ

7-13-1 Ä

ا ḅ χ ⅄ Ł Ḣ ژ ˙ ا ⅃ ا ' F8.36 Ẋ ⅄ ể
Ḣ ژ F8.37 W ᵒ Ḣ ژ ■ ˙ ا Ọ ا ' ǂ ϕ ا Ẅ Ö
F8.38 ⅄ ب ا ' F8.39 ا ᵕ Ω F8.40 ᴲ ا Ḣ ژ F8.41 ʇ ʅ
˙ ω̃ ȳ ᵘ ا ᴴ ᵒ ȳ



ɡ 7-13-1 ا ẻ Ỵ ɡ

1 Ẅ ˙
ا Ẅ Ö F8.35 ϕ ω̃ ḅ Ä Ã χ
0 χ Ọ ا '
F8.35 ا Ẅ Ö ĩ " Ọ ا ' " ˂ Ö

χ ẄAW = F8.35 * Ọ ɭ ' ɸ ɭ '

1 χ ω ƶ ɭ '

F8.35 ɭ ẄÖ ĩ “ ω ƶ ɭ ' ” ʿ Ö

χ ẄAW = F8.35 * ω ƶ ɭ ' F0.08

2 ɭ ɥ ɭ '

ɯ ɭ ʒ Ã χ ɭ ɥ ɭ ' = ɭ ɥ ɭ ' F8.39 * ẄAW

3 ɗ ʼH ɟ ⊃ ʼH ɟ

F8.40 ⊃ F8.41 ĩ ɭ ˘ Ω ⊃ ɗ ʼH ɟ Ö ɯ ɭ ʒ Ã ḅ

χ

ɗ ʼH ɟ = F8.40 * F8.41

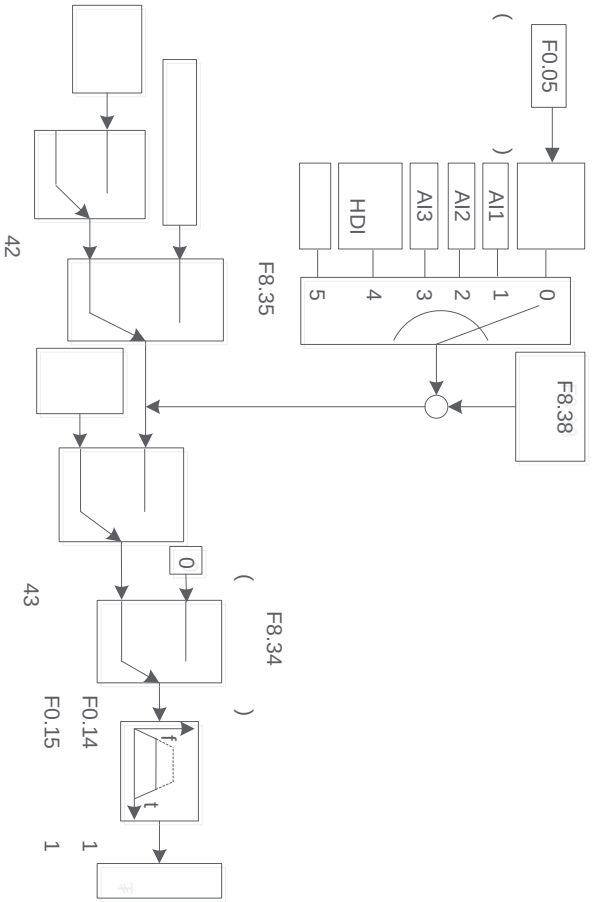
ɗ ʼH ɟ = F8.40 - ɗ ʼH ɟ

4 ɭ ↑ õ ʟ Ỏ

F8.35 ɥ ⊃ ɥ ɸ ɹ ɭ ↑ õ ȳ ⊃ ĩ ɑ ʟ Ỏ ḅ ' ɭ ↑ õ

ɑ ʟ Ỏ ¨ W ɤ ʼH Ł ↑ õ ʎ ʎ

ɭ ʜ ɭ Ɛ ʒ ˙ ɔ̈ ḅ ɡ Ä



ɡ 7-13-2 ɭ ˙ ɔ̈ ɡ

7.13.2

ɥ Ω̈ ḅ ˊ χ

F0.02	ɭ ' ◊		0 χ ʒ̈ Ω̈ ɸ (F0.05) 1 χ AI1 2 χ AI2 3 χ AI3	0

			4 χ ح ˙ HDI ʎ 5 χ ʒ	
F0.07	ω ʒ ژ ِ إ '		إ ' ں (F 0 . 0 8) Ḱ 300.00Hz	50.00Hz
F0.14	ʿH ژ 1		0.0 Ḱ 6000.0 s	ʒ
F0.15	ʿH ژ 1 ˚		0.0 Ḱ 6000.0 s	ʒ
F5.01	^ ̈Ọ ژ ʊ ʎ Ḍ X1~ X6 HDI		42 χ إ ʊ ʎ Ḍ ė Ã ٧ إ 43 χ إ ˆ ŏ ʜ ʜ إ ʜ ˈ أ ر إ ' ژ ِ	
F5.02				
F5.03				
F5.04				
F5.05				
F5.06				27
F5.07				0
F8.34	ʎ ر		0 χ ʎ ر 1 χ ʎ ر	0
F8.35	إ Ȧ Ã		**LED** 0 χ 1 χ ʎ Ḍ ė **LED** 0 χ Ọ إ ' 1 χ ω ʒ إ ' **LED** 0 χ ȳ ʟ Ȯ 1 χ ȳ ʟ Ȯ **LED** 0 χ ϋ 1 χ ϋ	0000

F8.36	إ أ ر إ '		0.00 Hz Ḱ إ ں ' F0.08	0.00 Hz
F8.37	إ أ ر إ ' ʎ ể ʿH ژ		(0.0 Ḱ 3600.0)s	0.0 s
F8.38	إ Ẅ Ö		0.0 Ḱ 50.0	0.0
F8.39	ʎ ب إ '		0.0 Ḱ 50.0	0.0
F8.40	إ ˘ Ọ		(0.1 Ḱ 999.9)s	10.0 s
F8.41	ʊ ʿH ژ		0.0 Ḱ 100.0 (إ ˘ Ọ)	50.0

7.14 PID ˙

إ ʜ ژ ر ˙ ʎ ʎ ژ ر ė Ã ĩ ˙ Ẃ Ȧ

q ʒ ‰ ʒ æ ˋ ĩ ˋ ʎ ʃ ذ ̈Ọ إ

ʜ ژ ِ إ ' ̲ ŏ ق ʒ ʎ ʎ Æ q p ‰ ˙ ˙

˙ □ ỷ ˙ ʎ ˙

7.14.1 PID

إ ʜ PID ژ ر ˙ ̈Ọ ϕ g ج ḃ χ

1 ژ ر ʎ ⊃ ʒ F9.01 F9.02 ψ

2 ژ ر ـ ϕ ژ ر ʎ ʒ ʜ ʎ F9.05~F9.08 ψ

3 ژ ر ذ ˝ ó ⊃ ژ ر ژ ِ ج F9.15 F9.34 ḃ ' ʎ ⊃ ا

ج ʜ ʎ ژ ر ˝ ó ذ ϕ Ă F9.15=1 ψ ḃ ' ـ ا ḡ ژ ر ژ

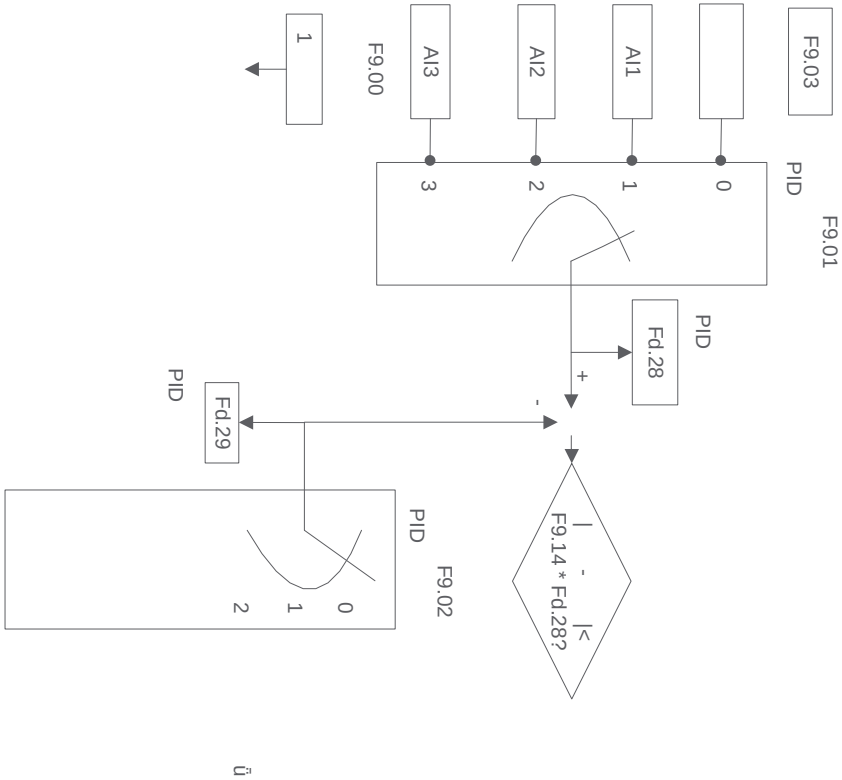
ِ ق ʿH ج F9.34 ϕ 1 ψ

4 ـ ϕ ˋ ذ ژ ر أ ر إ ' F9.16~F9.18 ψ

5 ذ ̈Ọ ʜ ʎ ̈Ọ ژ ر ژ ِ ˜ ʿH ژ ̄ ˘ Ọ ö ‖ ں

F9.09 Ḱ F9.14

ǵ ʎ ϕ ŏ g 7-14-1 ̈A



7.14.2

1 ڎ ע

F9.00 ĕ Ã ã ห ڎ PID ˙

0 χ ڎ ע ˙ ṇ ẽ

1 χ ڎ ע ˙ ũ ẽ

2 ⁄⁄

ị ᵸ ĕ ^ ⁄⁄ F9.01

0 χ ̈Ọ ⁄⁄ F9.03 Ö

Ĭ ⁄⁄ ̀H ⁄⁄ F9.03 Ö̃ F9.03 ĕ ̈Ọ ϕ ̈A

⋮ گ ̀ù̀ ϕ

1 χ AI1 ⁄⁄

PID ⁄⁄ ۱ Ḍ AI1 ᵘ ژ ۹ ۱ Ḍ AI1 ژ ۹ ĩ ⊥

ã̃ ị ᵸ ˙ — J1 ب ۱ ẃ ب ج ژ ۹ ė Ã̃

2 χ AI2 ⁄⁄

PID ⁄⁄ ۱ Ḍ AI2 ᵘ ژ ۹ ۱ Ḍ AI2 ژ ۹ ĩ ⊥

ã̃ ị ᵸ ˙ — J2 ب ۱ ẃ ب ج ژ ۹ ė Ã̃

3 χ AI3 ⁄⁄

PID ⁄⁄ ۱ Ḍ AI3 ᵘ ژ ۹ AI3 ĩ ژ ۹

˙ ژ ۹ ۱ ژ ۹ ٦ ۹ ȯ ۱ Ḍ ب ̈

ị ᵸ ḡ ⁄⁄ ڭ 4 ũ ⁄⁄ ̀A Ã ^ ڎ ע ⁄⁄ ̀A Ã

Ĭ ̀A Ã F9.19 Ḱ F9.33 ^ ڎ ע ⁄⁄ Ö Ã ڎ ע ⁄⁄

^ ڎ ע ⁄⁄ F9.19 Ḱ F9.33 15 ᵘ ۱ Ḍ ۸ ᵇ ╗

ȯ F5.01 Ḱ F5.07 ۱ Ḍ 30 Ḱ 33 ^ ڎ ע ⁄⁄ ˙ ⋇ ۱ ح F9.01

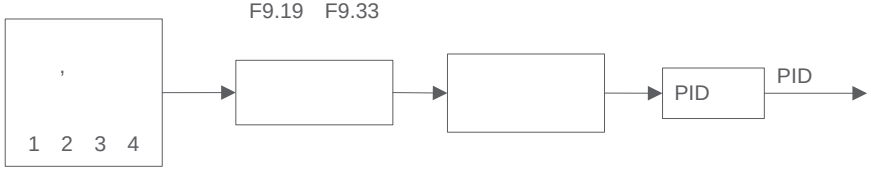
⁄⁄

^ ڎ ע ⁄⁄ ̈ḤÃ ۱ Ḍ ^ ⁄⁄ Ö ژ ห ۱ ḃ g 7-14-2 ⊃

7.4 ̈A χ

F5.01 F5.07

F9.19 F9.33



g 7-14-2 ^ ڎ ע ⁄⁄ ̈ḤÃ

OFF	OFF	OFF	OFF	
OFF	OFF	OFF	ON	1
OFF	OFF	ON	OFF	2
OFF	OFF	ON	ON	3
OFF	ON	OFF	OFF	4
OFF	ON	OFF	ON	5
OFF	ON	ON	OFF	6
OFF	ON	ON	ON	7
ON	OFF	OFF	OFF	8
ON	OFF	OFF	ON	9
ON	OFF	ON	OFF	10
ON	OFF	ON	ON	11
ON	ON	OFF	OFF	12
ON	ON	OFF	ON	13
ON	ON	ON	OFF	14
ON	ON	ON	ON	15

3

0 χ AI1

1 χ AI2

2 χ AI1+AI2

AI1 AI2

3 χ AI1-AI2

AI1 AI2

4 χ Min{ AI1 AI2}

AI1 AI2

5 χ Max{ AI1 AI2}

AI1 AI2

6 χ HDI

HDI

F9.04

AI1 AI2

J1 J2

⚠	AI1 W AI1

7.14.3

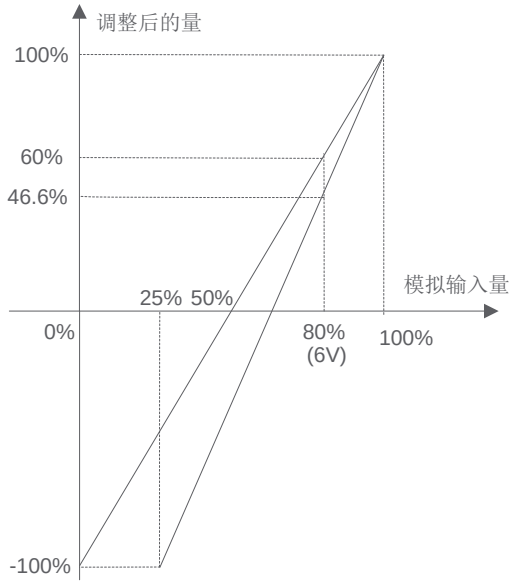
1

F9.05 F9.07 F9.05 F9.07

7-14-3 6V F9.05=0% F9.07=100%

60% F9.05=25% F9.07=100%

46.6 Fd.28



7-14-3

2 ῳ ᥰ Ẕ ᵢ ῳ ᵶ ᥰ Ẕ ᵢ

F9.06 ᵮ ῳ ᥰ Ẕ ᵢ F9.05=0 ,F9.06=20.0 ᵦ ῶ Ẹ

ᵢ ʒ Ӫ 2V῾H ἑ Ẕ ῳ ᥰ ἇ ἳ 0V Ẕ ῳ ᥰ ψ

F9.08 ᵮ ῳ ᵶ ᥰ Ẕ ᵢ F9.07=100 F9.08=80%ᵦ Ẹ

ᵢ ʒ Ӫ 6V῾H Ẕ ῳ ᵶ ᥰ

F9.06 F9.08 ᵢ ذ Ὼ ʜ ᥱ Ὺ ᥴ ᥰ ذ Ὼ ᥴ ɲ Ᵹ ذ Ὼ

Fd.29

	1. ᶃ 7-14-8 ܒ 0% Ḱ 100% ‰ -10V Ḱ 10V ᵹ Ὠ 10V Ẕ 100% -10V Ẕ 0% 6V῾H Ẕ 80% *2. ḅ ' ᥩ ᵹ Ὠ ᥩ ᵹ Ὠ ḫ ἳ 4~20mA ᵽ ܒ ‰ ḫ ἳ 50% Ḱ 100%*

ᵾ Ặ ᵹ ע PID ˙ ớ ᵹ ע ذ ᵶ ớ ᵼ ᵹ ע ᵹ ᵹ چ ᵹ ᵮ

1 ᵹ ע ᵹ ذ ᵶ ớ F9.15

0 χ Ă

Ẹ ᥰ ᵾ ɩ چ ᵾ ῾H

1 χ Ă

Ẹ ᥰ ᵾ ɩ چ ῾H

2 ᵹ ע ᵹ چ F9.34

0 χ ᥱ ᴴ ˙ 0Hz ᵹ ע ᵹ ق῾H ᥱ ᴴ ᵦ ᥱ

1 χ ᥱ ᴴ ˙ 0Hz ᵹ ע ᵹ ق῾H چ Ḩ ḅ ' گ چ چ

ᥱ ᴴ ᵦ ᥱ ؤ ở F0.06 ᵼ ᥴ Ḏ 35ب ˝

1 ˂ ذ F9.16

0 χ ᥱ ' ں῾H ȳ ˂ ذ

1 χ ᥱ ' ں῾H ᥰ ᥰ ˂ ذ

ᵼ ɩ ồ ᵩ Ẕ ᥴ ᥰ ᵽ ᥱ ' ں῾H ẫ ɳ ȳ ˂ ذ

2 ᵹ ע ᶅ ɹ ᥱ '

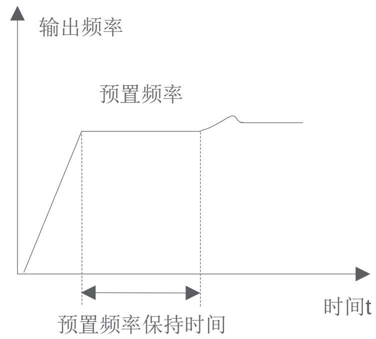
ɲ ᵮ ɹ ᵹ ע ᶅ ɹ ᥱ ' F9.17 ᵼ ᶅ ɹ ʒ ῾H ᵹ F9.18 Æ ᵹ ע ذ

ồ Ὠ گ ᵘ ᵹ ע ᶅ ɹ ᥱ ' F9.17 ᵮ Ӫ Ẕ ᥴ ᵮ ᥱ ' Ӫ

Fd.02 ᵦ ᶅ ɹ ᥱ ' ἧ ῷ

ᵹ ע ᵛ ᥱ ' ث Ӿ Ł ῾H ᵹ ᵹ ע ᶅ ɹ ᥱ ' F9.17 Ẋ ᵽ ᶅ ᥱ

' ᵽ ᥰ ᶅ ɹ ʒ ῾H ᵹ F9.18 ἑ Ł ᵹ ע ᵶ ớ ḅ ᶃ 7-14-4 Ά χ



ᶃ 7-14-4 ᵹ ע ᶅ ɹ ᥱ ' Ὺ ᶃ

⚠	*ἧ ᵼ ᵹ ע ᶅ ɹ ᥱ ' ᶅ ɹ ᥱ ' ᵼ ʒ Ή ᵹ ᵶ ᵮ 0*

7.14.6

ᵹ ע PID ˙ ɩ æ ˂ ἳ ˂ ɰ ᥴ Æ ɋ ᵽ ‰ Ά ᶅ

╧ ˙ æ ᵾ ˂ ᵾ ἳ ˂ ᵾ ¯ ᵕ Ὼ ᵹ ᵷ ῾H ᵹ ᥴ ᥴ ˚ Ὼ ᵮ

Ẋ ᵼ ɩ ⁞ ʆ ừ Ẕ ᵮ ˙ ῳ ä PID ذ ῷ '

1 æ ᵾ Kp F9.09 ˂ ᵾ Ki F9.10 ἳ ˂ ᵾ Kd F9.11

æ ᵾ Kp χ Ẹ ᵢ ᥰ ˛ א ӛ ῾H ᵹ ӛ ἇ æ ذ ӛ ở

ᵦ ذ ở æ ذ ồ ᵩ Ẕ ᵢ Ḩ ᥰ æ ذ ἧ Ȳ ἧ

˙ æ ᵾ ᵴ ᵶ ᥴ ᥰ ذ ẙ ᵴ ồ Ḩ ᵶ ˜ ᥴ æ ᵾ

ᥴ ᥰ ẽ ᵩ ḅ ᶃ 7-14-5 Ά χ

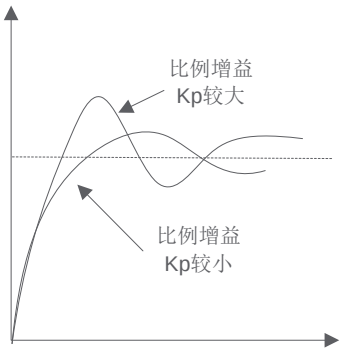


图7-14-5 参数 调节 Y图

参数 Ki χ Ę 在 小 ¸ Ж 时 `H 区 间 小小 时 ḃ ' 时 小 ḡ ¨ 区 小 ш ˙ 忽 时 ˋ 区 н 忽 ᾧ ᾧ ş ╥ ъ ˜ Ki ¨ ¸ Ж н 小 区 Æ 小 小 ˙ 小 ˋ ш 小 小 ẽ φ ḃ 图 7-14-6 ˝A χ

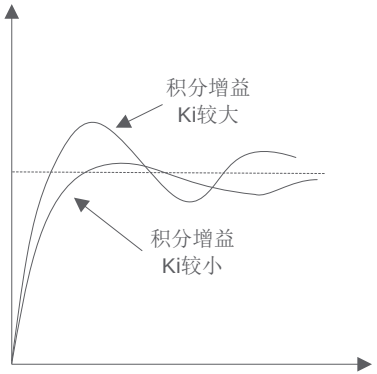


图7-14-6 ˋ ш 小 小 ẽ φ Y图

ỉ ˋ ш Kd χ ы ḏ ḡ PID 区 н 时 ỉ ˋ Ö ỉ ˋ Ö ỉ 时 Ö ' 参 ḃ ḃ ' ژ ↻ 时 Ö 小 ó ¨ ḡ 区 н ژ ¸ Ö ở 区 Ĺ 区 时 Á ⊃ ž 忽 н 时 ع Á ⊃ ž ṇ н ỉ ˋ 区 Ă ỉ ḡ 在 ʒ 小 `H ⁞ ⁄ 区 ᾷ ˙ 在 ʒ ỉ ˋ 区 н ت ỷ Æ 小 ỉ ˋ 区 н ˜ ᾷ ž 小 小 ẇ Ţ ỉ ḷ ' ḍ ẇ ỉ ˋ ш 小 小 ẽ φ ḃ 图 7-14-7 ˝A χ

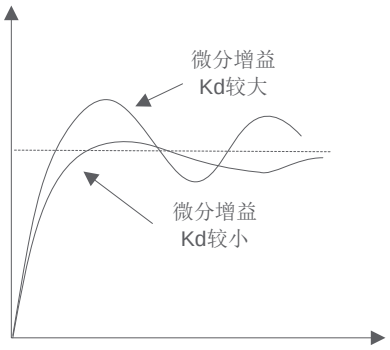


图7-14-7 ỉ ˋ ш 小 小 ẽ φ Y图

2 区 间 `H 区 F9.13

区 间 `H 区 ỉ 区 间 区 ḷ ' ᾷ ج 间 `H 区 区 间 `H 区 ٩ ž 区 φ Ẓ ٩ ỹ

3 ¯ ˘ Ọ F9.12

¯ ˘ ỌT ỉ 在 ¯ ˘ Ọ ḡ ¯ ˘ Ọ 区 间 区 н ١ ¯ ˘ Ọ ٩ ž φ Ẓ ٩ ỹ

4 参 ‖ ں F9.14

小 小 区 Ö 区 间 小 Ö ы ḏ ḡ ž 参 ḃ 图 7-14-8 ˝A Ę 在 ḡ ḃ 刀 `H 区 间 区 н ỹ 区 Ę Φ ⅃ ã 刀 Ĩ 小 小 区 小 ỷ ⊃ ỷ

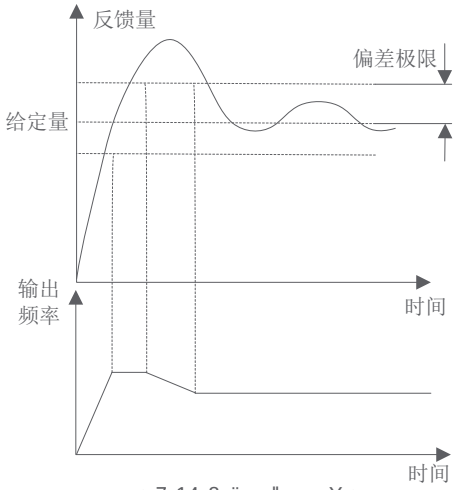


图7-14-8 参 ‖ ں Y图

7.14.7

F0.06			0 χ 1 χ 2 χ	0
F5.01	X1			
F5.02	X2			
F5.03	X3		18 χ 19 χ AI1 20 χ AI2 21 χ AI3 22 χ HDI 23 χ 30 χ 1 31 χ 2 32 χ 3 33 χ 4 34 χ 35 χ 37 χ	
F5.04	X4			
F5.05	X5			
F5.06	X6			27
F5.07	HDI			0
F9.00			0 χ 1 χ	0
F9.01			0 χ 1 χ AI1 2 χ AI2 3 χ AI3	
F9.02			0 χ AI1 1 χ AI2 2 χ AI1+AI2 3 χ AI1-AI2 4 χ MIN AI1 AI2 5 χ MAX AI1 AI2 6 χ HDI	

F9.04			(0 Ḱ 39000)rpm	0 rpm
F9.05			0.0 Ḱ (F9.07) (10V;20mA)	0.0%
F9.06			0.0 Ḱ 100.0 (10V;20mA)	0.0%
F9.07			(F9.05) Ḱ 100.0 (10V;20mA)	100.0
F9.08			0.0 Ḱ 100 (10V;20mA)	100.0
F9.09	KP		0.000 Ḱ 10.000	2.000
F9.10	Ki		0.000 Ḱ 10.000	0.100
F9.11	Kd		0.000 Ḱ 10.000	0.100
F9.12			(0.01 Ḱ 50.00)s	0.50s
F9.13			(0.01 Ḱ 10.00)s	0.05s
F9.14			0.0 Ḱ 20.0	2.0%
F9.15			0 χ 1 χ	0
F9.16			0 χ 1 χ	0
F9.17			(0.00 Ḱ 300.00)Hz	0.00Hz
F9.18			(0.0 Ḱ 3600.0)s	0.0s
F9.19 ~ F9.33	1~15		-10.00 Ḱ 10.00 V	0.00V
F9.34			0 χ PID 1 χ PID	0

7.15

7.15.1

[illegible]

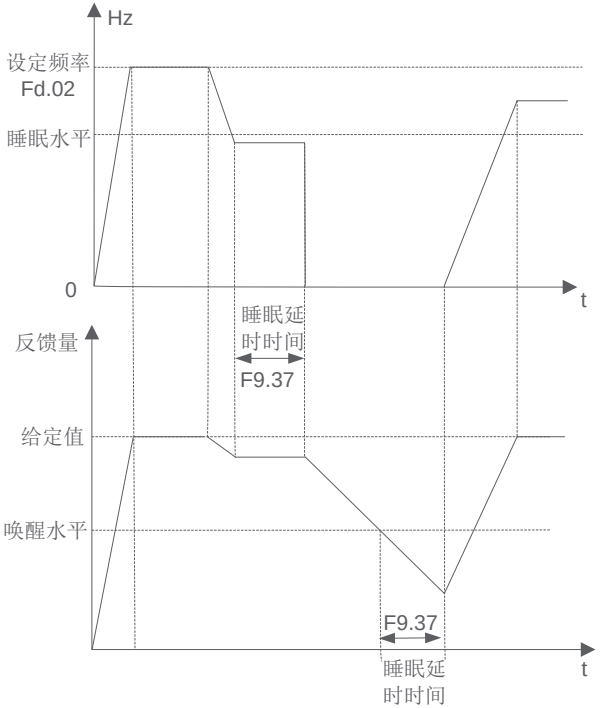
[illegible] 0Hz [illegible] PID [illegible]

[illegible] 7-15-1 [illegible] 7-15-2 [illegible]

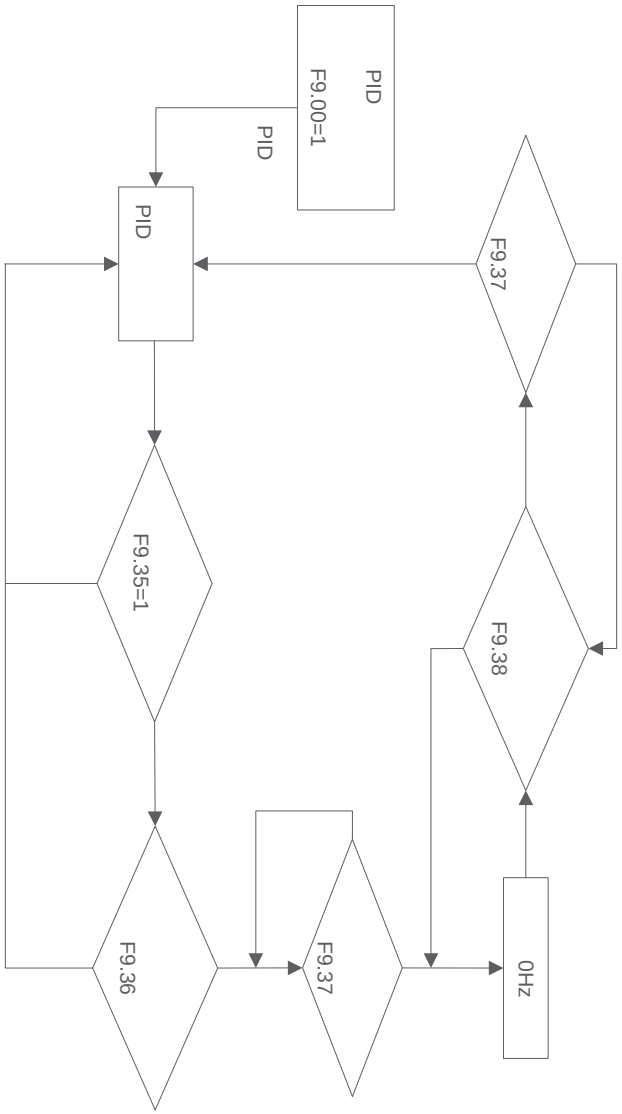
[illegible] F9.35 [illegible] 1 [illegible] F9.36) [illegible] F9.37 [illegible]

[illegible] 0Hz [illegible] Fd.29 [illegible] F9.38

[illegible]



[illegible] 7-15-1 [illegible]



[illegible] 7-15-2 [illegible]

F9.35			0 χ ṇ ṏ 1 χ Æ	0
F9.36	Ẇ		0.0 Ḱ 100.0 ◗	50.0%
F9.37	ả Ḥ		(0.0 Ḱ 6000.0)s	30.0s
F9.38	ẹ Ẇ		0.0 Ḱ 100.0 ◗	50.0%

7.16 ৷৷ ˜ PLC ^

7.16.1 PLC

ị ᵸ ɲ ɻ ৷৷ ˜ PLC ৷৷ ˜ PLC ĩ ^ ɩ ᵸ ⁝ Ṏ₽

Ḥ ژ ị ' Ȧ ◗ ' ɻ ̇ Ĵ ᵘ PLC

ᵖ ڈ ǎ ⅄ ɒ Ə ، ị ᵸ ڂ ⅄ ḅ g,7-16-1 Ȧ

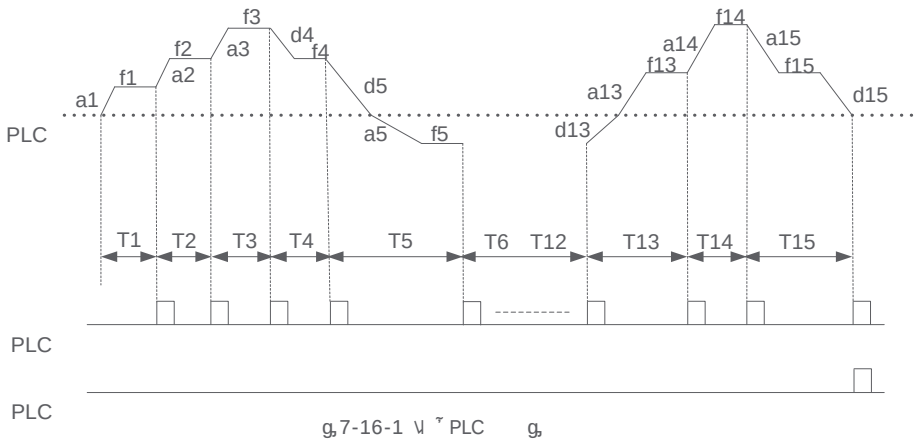
g,7-16-2 a1 Ḱ a15 d1 Ḱ d15 Ȧ ʃ گ ⁻ᵒᵒ Ḥ ژ f1 Ḱ f15

T1 Ḱ T15 Ȧ ʃ گ ₽ ị ' ⁻ گ Ḥ ژ ₽ ˍ Ă Ẓ ৷

PLC گ ⁻ ɩ ɤ ǎ Ȃ ث ؤ ‖ ژ ˍ ৷ Ḍ Y1 Y2 ǎ ৷ ᵸ ژ

ˍ ̇ ʒ ð F6.00 Ḱ F6.03 “ 12 ” ৷৷ ˜ PLC گ ڇ ǎ ⁻

“ 13 ” PLC ɩ ɤ ǎ



g,7-16-1 ৷৷ ˜ PLC g,

₽ Æ ị ᵸ ৷৷ ˜ PLC Ḥ Ṏ₽ ڇ Ȧ Ã ৷ Ȧ Ã

ч Ȧ Ã گ Ḥ ژ ɻ گ Ṏ₽ ʊ ч ð g,

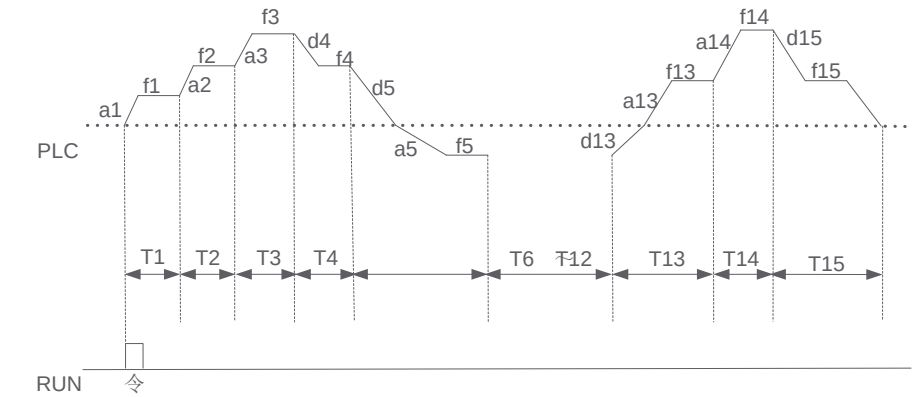
7-16-8

1 Ȧ Ã FA.00 ɻ ₽ ʃ

0 χ Ă PLC Ȧ Ã ṇ ṏ

1 χ ɩ ɤ ȳ ḅ g,7-16-2 Ȧ ị ᵸ ǎ ɩ ɤ ȳ ˍ ɻ

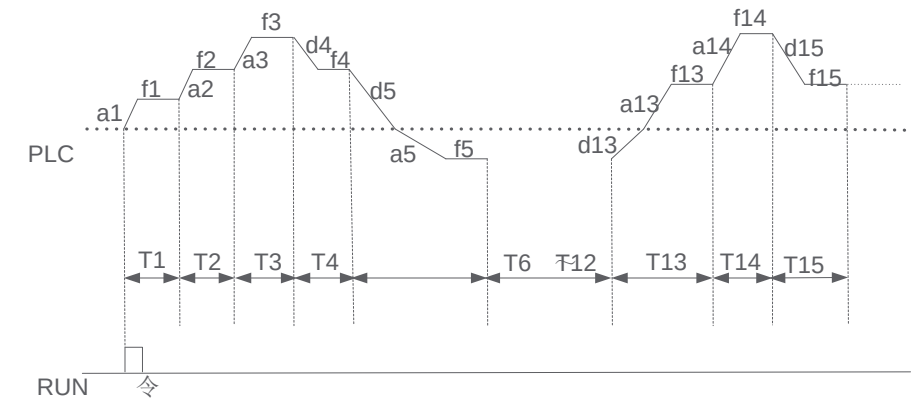
W ৷ ˍ ᵘ ε ৷



g,7-16-2 PLC ɩ ɤ ȳ Ȧ Ã

2 χ ɩ ɤ ʒ ω ৷ Ö ḅ g,7-16-3 Ȧ ị ᵸ ǎ ɩ ɤ ʒ

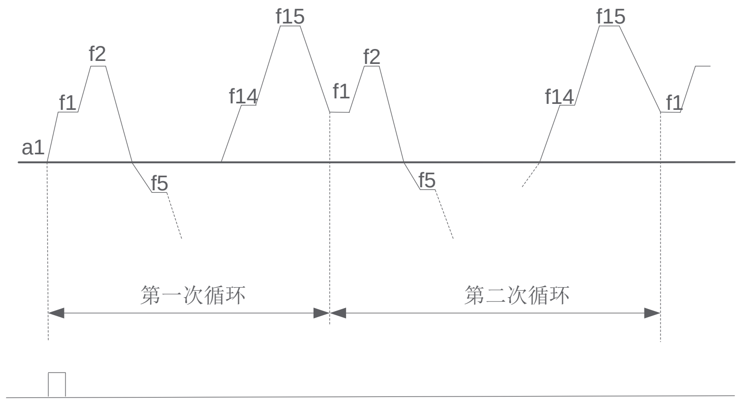
ω ị ' Ȧ



g,7-16-3 PLC ɩ ɤ ʒ Ȧ Ã

3 χ ৷ ɩ ɤ ḅ g,7-16-4 Ȧ ị ᵸ ǎ ɩ ɤ Ȃ Ḋ ɩ ɤ

ȳ ᵘ



ḡ7-16-4 PLC ＜ Ȉ ﻳ Ά Ẫ

2 ٧ Ά Ẫ FA.00 ʜ ֆ ℾ

0 χ ᛗ Ẫ Ḋ Ά

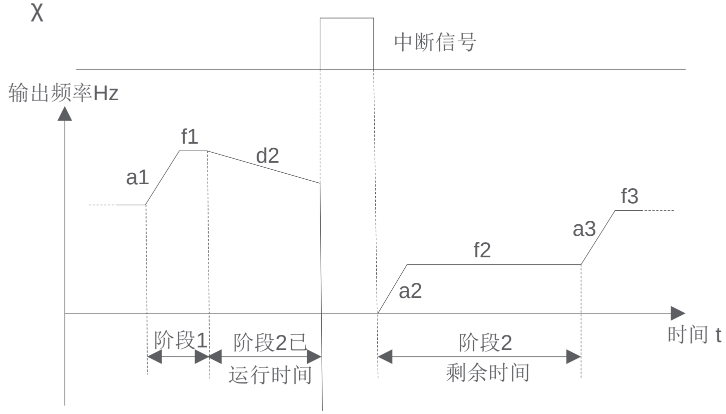
ȳ ȳ ᵘ ῷ ẵ ᾰ Ậ ٧ W ٧ ᛗ Ẫ Ḋ

1 χ ȳ (ᾰ ῷ ẵ)῾H ⁻ ڳ ḽ ' ﾊ ﾊ

ȳ ȳ ᵘ ᾰ ῷ ẵ Ậ ٧ ḽ ᴴ ʟ ẹ Ḙ ڳ ῾H

ڗ W ٧ ሚ Ἰ ڳ Ἰ ڳ ḽ ' ﾊ ﾊ ɛ ɱ ῾H ڗ ḅ ḡ

7-16-5῎Ά χ



a1: 阶段1加速时间　a2: 阶段2加速时间
a3: 阶段3加速时间　d2: 阶段2减速时间
f1: 阶段1频率　f2: 阶段2频率
f3: 阶段3频率

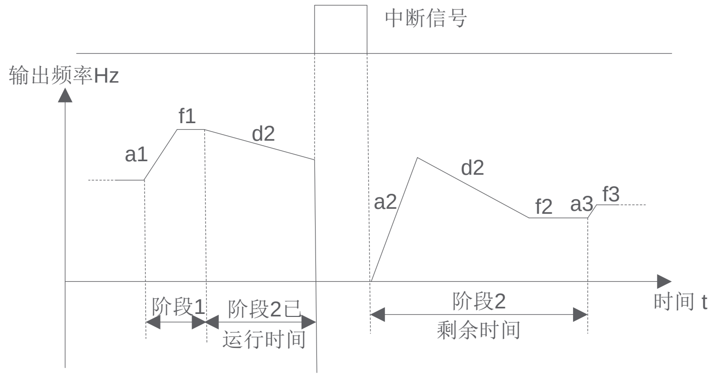
ḡ7-16-5 PLC ٧ Ά Ẫ 1

2 χ ȳ (ᾰ ῷ ẵ)῾H ⁻ ḽ ' ﾊ ﾊ

ȳ ȳ ᵘ ᾰ ῷ ẵ Ậ ٧ ḽ ᴴ ʟ ẹ Ḙ ڳ

῾H ڗ ᾰ ʟ ẹ ȳ ῾H ⁻ ḽ ' W ٧ ӿ Ὃ ᴴ ȳ ῾H ⁻ ḽ ' ﾊ ﾊ

ɱ ڳ ḅ ḡ 7-16-6῎Ά χ



a1: 阶段1加速时间　a2: 阶段2加速时间
a3: 阶段3加速时间　d2: 阶段2减速时间
f1: 阶段1频率　f2: 阶段2频率
f3: 阶段3频率

ḡ7-16-6 PLC ٧ Ά Ẫ 2

3 ῾HPLC ꜛ ỗ ῎Ọ Ӵ FA.00 ʜ ֆ ℾ

0 χ Ӵ

῾H ʟ ỎPLC ꜛ ỗ W ٧ ᛗ Ẫ Ḋ

1 χ Ӵ ῾H ⁻ ڳ ḽ '

ʟ ỎPLC ꜛ ỗ ῾H ⁻ ڳ ḽ ' ῾H ڗ

Ł ʜ PLC Ă W ٧ Ά Ẫ

4 ڳ ῾H ڗ ʜ FA.00 ʜ ֆ ℾ

0 χ ڳ ῾H ڗ ɰ῾H

1 χ ڳ ῾H ڗ ɰ῾H

Ἰ ʜ PLC ڳ ῾H ڗ T1 Ḱ T2 ὦ ῷ PLC Ọ ڗ ῾H ڗ ʜ

Ἰ ῎Ọ

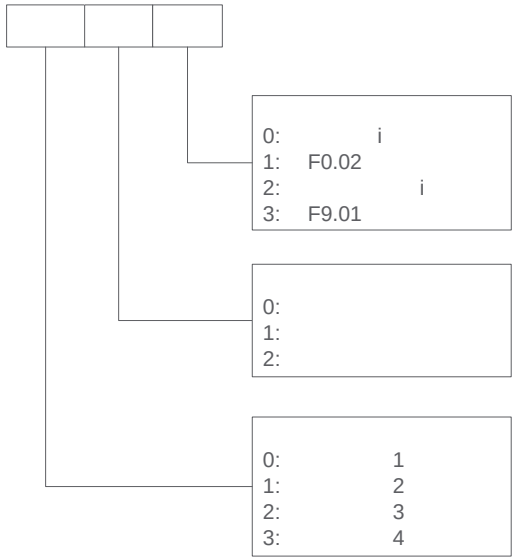
⚠	*1.PLC • ῾H ڗ ֆ ﾉ ﹼ ῾H Ἰ ṇ ῷ* *2. ᛙ Ḏ PLC ọ ȳ , ῷ ʟ Ỏ ꜛ ỗ ▌ ﹼ ᛙ ت* *ỏ F5 ﾉ ᛙ Ḏ*

ง ˜ PLC Æ ⊥ ˙ Ḕ ^ گ ِ ᵸ ĕ ᵸ

FA.01 FA.03 FA.05 FA.07 FA.09 FA.11 FA.13 FA.15 FA.17

FA.19 FA.21 FA.23 FA.25 FA.27 FA.29 گ ِ ' Ȧ

˚˚ ̀H ژ ϕ Ẋ ẓ ĩ ᵸ ϕ ḃ g,7-16-7 ̈A χ



g,7-16-7 PLCگ ِ iϕ ⌟

1 χ ِ ' ϕ ⌟

0 χ ^ ِ ' N(N: Ẕ Ḕ˙ گ ِ)

گ ِ N ِ ' ^ ِ ' N æ ḃ N = 4 گ ِ 4 ِ ' ^ ِ ' 4

FA.34 ^ ِ ' 1 Ḱ 15 Ö FA.31 Ḱ FA.45 ϕ

1 χ F0.02 ˜

ِ ' ϕ ِ ' ◊ F0.02˜ τ ɥ ȯ F0.02

2 χ ^ ژ ע ⁄ N(N: Ẕ Ḕ˙ گ ِ)

گ ِ N ِ ' ^ ژ ע ⁄ N æ ḃ N=5 گ ِ 5 ِ ' ^ ژ ע ⁄ 5

F9.23 ̀H ̇ Ẕ Ö F9.02 ̇ ^ ژ ע ⁄ 5

̀H ژ ِ ' ẓ ϕ ِ ' F0.05 ψ ̇ Ẕ Ö ^ ژ ע ⁄ 5

̀H ژ ِ ' ں ẓ H ِ ' ں F0.09 ψ ̇ Ẕ Ö ^ ژ ע ⁄ 5

̀H ژ ِ ' ʒ

3 χ ژ ע ⁄ F9.01 ˜ ⁄

PLC א g • گ ژ ע Ȧ Ã ژ ע ⁄ F9.01˜ ̇

F9.02 ̀H Ł PID ˚ ϕ Ẕ ⁄ ⊃ ̇ τ ɥ ȯ F9 ⌟

⌟

2 ج Ȧ χ

0 χ ج

1 χ ج

2 χ ᵘ F0.06 τ ɥ ȯ F0.06

3 ˚˚ ̀H ژ

0 χ ˚˚ ̀H ژ 1 τ ɥ ȯ F0.14 F0.15

1 χ ˚˚ ̀H ژ 2 τ ɥ ȯ F8.00 F8.01

2 χ ˚˚ ̀H ژ 3 τ ɥ ȯ F8.02 F8.03

3 χ ˚˚ ̀H ژ 4 τ ɥ ȯ F8.04 F8.05

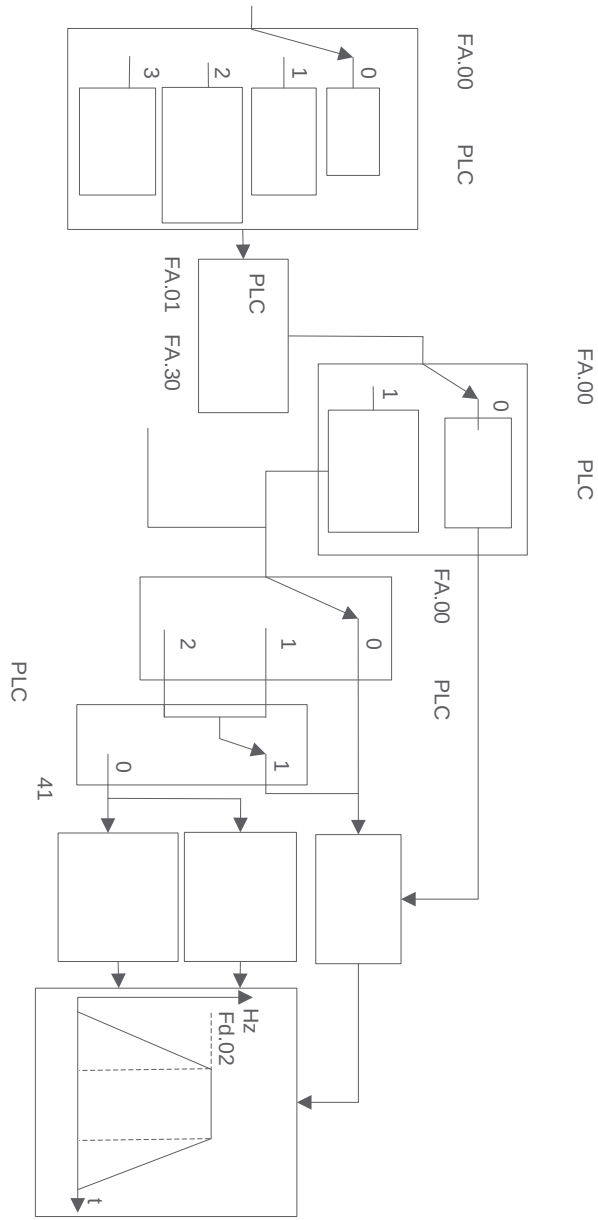
⚠	*PLCگ ِ ج Ȧ ᵘ ̀H ج Ȧ ᵘ Ȧ ᵘ* *̀H ˜ ẓ ḃ χ FWD-COM ϰ ج REV-COM ϰ ج* *ج Ȧ ᵘ Ȧ ψ Ȧ ṅ ̇ ṇ گ ِ ج* *Ȧ*

ᵘ ง ˜ PLC ̀H ژ FA.02 FA.04 FA.06 FA.08

FA.10 FA.12 FA.14 FA.16 FA.18 FA.20 FA.22 FA.24 FA.26 FA.28

FA.30 Ẕ ϕ ̀H ژ ɥ ũ FA.00 ɥ Ö˜

ِ ᵸ ง ˜ PLC ̈ g, ḃ g,7-16-8 ̈A χ



ﻭ 7-16-8 ﻻ ﺃ PLC ﻭ ﺗ

7.16.2

ﺑ ﺍﻟ ﻭ ﻭ ﺍ ﺍ

F0.02	ﺍ ' ◊		0 χ ﺟ ﺍ ﻭ F0.05 1 χ AI1 2 χ AI2 3 χ AI3 4 χ ﻻ ﻟ HDI ﻻ 5 χ ﺩ	0
F0.05	ﺟ ﺍ ﻭ ﻫ		F0.09 ﻯ F0.08	50.00Hz
F0.06	ﺟ ﻯ ﻫ		0 χ ﺳ ﻣ ﻯ 1 χ ﻯ 2 χ ﺟ	0
F0.09	ﺍ ﺍ ﺑ		0.00Hz ﻯ F0.08	50.00Hz
F5.01	X1 ﻻ ﻟ		18 χ ﺍ ' ◊ ﻭ ﺍ ﻭ	1
F5.02	X2 ﻻ ﻟ		19 χ ﺍ ' ◊ AI1	2
F5.03	X3 ﻻ ﻟ		20 χ ﺍ ' ◊ AI2 21 χ ﺍ ' ◊ AI3	24
F5.04	X4 ﻻ ﻟ		22 χ ﺍ ' ◊ HDI 23 χ ﺗ ﺍ ' ◊ ﻭ ﻭ	25
F5.05	X5 ﻻ ﻟ		24 χ ^ ﺍ ' 1	26
F5.06	X6 ﻻ ﻟ		25 χ ^ ﺍ ' 2 26 χ ^ ﺍ ' 3	27
F5.07	HDI ﻻ ﻟ		27 χ ^ ﺍ ' 4 28 χ ﻫ ﻫ ﻭ 1 29 χ ﻫ ﻫ ﻭ 2 30 χ ^ ﺗ ﻻ ﻻ 1 31 χ ^ ﺗ ﻻ ﻻ 2 32 χ ^ ﺗ ﻻ ﻻ 3 33 χ ^ ﺗ ﻻ ﻻ 4 34 χ ﺟ 35 χ ﺟ	0

FA.33	^ ' 3		FA.31	15.00 Hz
FA.34	^ ' 4		FA.31	20.00 Hz
FA.35	^ ' 5		FA.31	25.00 Hz
FA.36	^ ' 6		FA.31	30.00 Hz
FA.37	^ ' 7		FA.31	35.00 Hz
FA.38	^ ' 8		FA.31	40.00 Hz
FA.39	^ ' 9		FA.31	45.00 Hz
FA.40	^ ' 10		FA.31	50.00 Hz
FA.41	^ ' 11		FA.31	10.00 Hz
FA.42	^ ' 12		FA.31	20.00 Hz
FA.43	^ ' 13		FA.31	30.00 Hz
FA.44	^ ' 14		FA.31	40.00 Hz
FA.45	^ ' 15		FA.31	50.00 Hz

Ă

8.1

8.2

E.OC1		1	
		2	
		3	
		4	
		5	
		6	
		7	
E.OC2		1	
		2	
		3	
		4	
		5	
E.OC3		1	
		2	
		3	

		4	
		5	
E.OV1		1	
		2	
		3	
		4	
E.OV2		1	
		2	
		3	
E.OV3		1	
		2	
		2	
		3	
		4	
		5	
E.OV			
E.SPI			
E.SPO			
E.FO		1	

		2	
		3	
		4	
		5	
		6	
		7	
		8	
		9	
E.OH1		1	
		2	
		3	
		4	
		5	
E.OH2		1	
		2	
		3	
		4	
E.OL2		1	
		2	
		3	
		4	
		5	
		6	

E.OL1		1	
		2	
		3	
		4	
		5 V/F´Y	
E.EF			
E.EEP	EEPROM		STOP
E.CE	RS485 g	1	
		2 g	
		3 g	
E.SHt	g		

E.PCE		1	
		2 EEPROM	
E.tE		1	
		2	
		3	
		4	F0.08(F0.08
E.bCE			

⚠	

8.3

Ḿ ṷ	MF ṇ̀ Ẓ	Ṇ̀ Ă ̦ — ɨ ṷ ǎ Ʊ	ȯ “Ṇ̀ Ă ̦ — ɷ ɸ Ẓ ” ɿ ̃ Ȧ
	PRG ṇ̀ ʒ̀ Ĭ ↑ ȫ Ĭ 0000	ɸ ɷ Ȧ	ʒ̀ ɿ Ȧ
			Ȯ
ṇ ʰ Ỳ ᵘ ȳ	ˈ ʸ ̦ ȳ ᵘ ṇ ʰ ȳ ˢ ᵒ	ɷ ʒ̀ ɷ ɨ ɷ ʒ̀	ɨ ɷ ʒ̀ ɨ ʰ ʰ ɷ ʒ̀
		◊ ɷ Ă	ɨ ě ʒ̀
		ᵘ ˍ	ɨ Ṇ̀ Ă ᵘ ʰ ɸ ɿ
		˙ ʸ Ḍ ɷ ʒ̀	ɨ F5.08 ɸ ɿ Ĩ ʸ ɿ
	ˈ ʸ ̦ ȳ ᵘ ȳ ʒ̀ ṇ ʰ ṇ ˢ ᵒ	ɷ ʒ̀ ʰ ɷ	ɨ ɷ ʒ̀ ʰ ɷ ɸ ɿ ɷ ʒ̀ ɨ ɨ
		ᵘ Ă	ɨ ᵘ Ă ɸ ɿ ◊ ɷ ʒ̀
		ɸ ṇ ˈ 0	ɨ ɸ ɨ ṇ ˈ
		ˀ ṇ ˈ ʒ ɸ ṇ ˈ	ɨ ṇ ˈ ˀ ɨ
		ɷ ʒ̀ ɿ ɸ ṇ ˈ ṇ ب	ɨ ɸ ˈ ɿ ɸ ṇ ب
		ʒ̀ ʒ̀ ” Ḍ ɿ “ Æ	ɨ Ḍ ɿ ɸ ɿ
		ʒ̀ ʒ̀ ” Ḍ ɿ “ Æ	ɨ Ḍ ɿ ɸ ɿ
ṇ̀ ʰ ṇ	ʰ ṇ ʒ̀ ˢ ᵒ	ȳ ʒ̀ ɿ Ḍ ɷ ɷ̃	ɨ ȳ ʒ̀ ɿ Ḍ
		ʰ ṇ ɿ Ḍ ɷ ɷ̃	ɨ ʰ ṇ ɿ Ḍ
		ᵘ ȳ ɿ Ḍ ɷ ɷ̃	ɨ ᵘ ȳ ɿ Ḍ
		˙ ɿ Ȧ Ã ɿ ˙ ʒ̀ ˙ ɿ Ḍ ˈ ʒ̀	ɸ ɿ Ẋ ʒ̀ ˙ ɿ ʒ̀ ˙ ɿ Ḍ
		ɷ ʒ̀ ʒ̀	ʒ̀ ɷ ɷ
		Ẹ ʒ̀ ɿ Ḍ ʒ̀ ɸ ɿ	ɨ F5.08 ɸ ɿ

ṇ ʰ ɿ 报 P.oFF	ṷ ʒ̀ ɿ ǎ ʰ ʰ Ă Ã ʒ̀ ɿ ṇ ʰ	ṷ ʒ̀ ɿ ǎ ʰ ʰ ˈ ʒ̀ ṇ ʰ ʒ̀ ɿ ʒ̀ ʒ̀ ɿ Ḥ ˢ ʰ ɿ ʰ ʸ ʒ̀ ɿ ṇ ʰ ʸ Ĭ P.oFF ǎ W Ĭ E.SHt ɷ ʒ̀	ɿ ẽ ṷ ʒ̀ ɿ ǎ ʰ ʰ ʒ̀ ʒ̀ W ṇ ʰ

8.4 ɷ ʒ̀ ɿ ... Ă ⅡL

ɷ ʒ̀ ɿ ... Ă ⅡL ḅ ɡ ̦ Ȧ

ɡ ̦ 8-4-1 ɷ ʒ̀ ɿ ... Ă ⅡL ɡ ̦

[illegible]

9.1 [illegible]

[illegible]

1 [illegible]

2 [illegible]

3 [illegible] 25V

9.2 [illegible]

9.2.1 [illegible]

1. [illegible]
2. [illegible]
3. [illegible]
4. [illegible]
5. [illegible]
6. [illegible]

9.2.2 [illegible]

[illegible] 25V [illegible]

1. [illegible]
2. [illegible]
3. [illegible]
4. [illegible]
5. [illegible]

[illegible] 9-2-1

9.3 [illegible]

[illegible]

9.1 [illegible]

[illegible]	1 [illegible]	[illegible]	1 [illegible]	1 -10 [illegible] 40 40 [illegible] 50 [illegible] Æ
	2 [illegible]		2 [illegible]	2 [illegible]
	3 [illegible]		3 [illegible]	3 [illegible]
[illegible]	1 [illegible]	[illegible]	1 [illegible]	1 [illegible]
	2 [illegible]		2 [illegible]	2 [illegible]
	1 [illegible]	[illegible]	1 [illegible]	1 [illegible]
	2 [illegible]		2 [illegible]	2 [illegible]
[illegible]	1 [illegible]	[illegible]	1 [illegible]	1 [illegible]
	2 [illegible]		2 [illegible]	2 [illegible]
	3 [illegible]		3 [illegible]	3 [illegible] 35

Ex9VF3

گ ę A RS485-MODBUS g ب ˝

A.1 ۷ л

۷ ۸ ţ н ю RS485-MODBUS g

ţ н ě RS485 ʒ ƒ گ‰´ Modbus g ɲ

g ˝A PC/PLC ю ę ۷ ۷ ۷ ˙ ₽ ţ н ˙ u

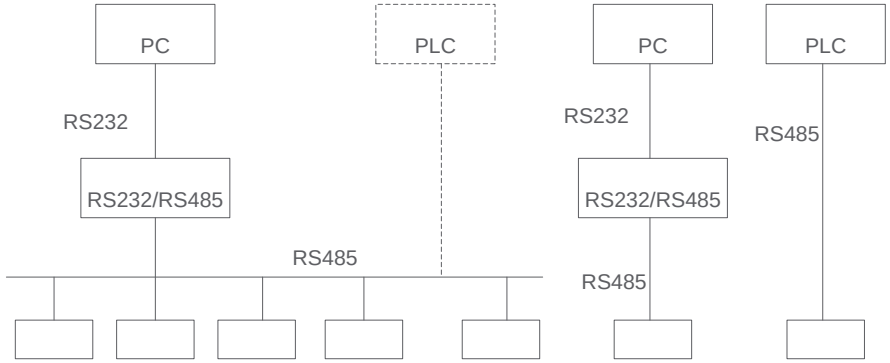
ţ ' ю ˝Ω Ї ώ ţ н Ă ↑ ő ώ ڪ ʒ Ụ ۷ Ẓ

ˢ Ẓ ţ

A.2 ۸ ۸ Ă Ã

ţ g,A-2-1˝A ţ н Ă 1 ۸ ۸ Ă Ã ő χ / ^ Ă Ã

/ Ă Ã



g,A-2-1 ţ н ۸ ۸ Ă Ã Ỵ g,

A.3 Ă Ã

RS485 χ ầ ш n χ 1-8-N-2 1 ю ∨ Ḋ ю 8 ю ˝Ω ю ṇ ›

ج 2 ю ȳ ю 9600bps RTU ş χ 0x01 ˝Ω₽ ۸ ð Fb ۸ ب ˝

A.4 g Ă Ã

1 ţ н g ɲ Modbus ɲ ˜Ḥ RTU ⊃ ASCII ɲ Ă Ã

2 ţ н Ã ₽ ₽ g Æ ẍ Ḥ ş χ u ˋH

Ẓ ۷

3 ţ ^ g ã ą̃ ذ ' ùˋ ţ 1 g ʒ ۸ ۷ ⊃ ق ۷ Ẋ

100 Ḱ 120 ç گ ج g ớ

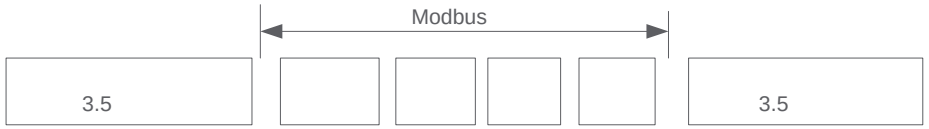
4 ţ н ě RS485 u ₽ ⁑ g RS232ˋH ۱ ۱

RS232/RS485 ج ₽ ⁑

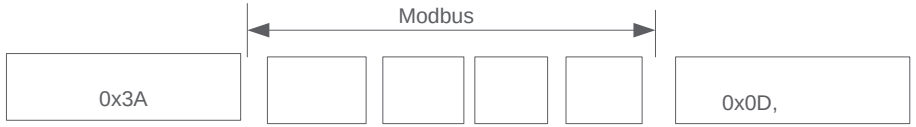
A.5 ɲ Ã

Modbus ɲ ˋH˜Ḥ RTU Ă Ã ⊃ ASCII Ă Ã Ẓ Ã ţ g,˝A

方式



方式



g,A-5-1 Modbus ɲ Ã

Modbus “ Big Endian ” ۸ Ă Ã ⁑ ج ю ł ĩ Ḥ ю

A.5.1 RTU

ţ RTU Ă Ã ژ ۷ ژ ˋH ژ ₽ ⊃ Modbus л ۱ Ö ۲ ۳

Ö Modbus л ۱ ω ژ ۷ ژ ţ χ ˘ ⊃ Ở ۱ ۷ ژ ˋH ژ 3.5

ˋH ژ ˹ ˝Ω › ج CRC-16 ˝Ω ʒ Ụ › ج › ج ⊃ ج Ḥ

۱ ۱ ت ч CRC › ج ت ą̃ ɲ ˢ æ Ö ę Ỵ ĩ ژ ʒ

3.5 ۷ Ở ۱ ۷ ژ ژ Ở ۱ ۷ ژ ۱ ۱ ۷ Ḋ ⊃ ل ۷ ژ

ˢ æ ţ RTU Ă Ã ح 5 л н 0x0101 F1.01 ˝Ω

ت χ

ş χ	u	˝Ω				› ج	
		н ş χ		ح	˝Ω		
0x05	0x03	0x01	0x01	0x00	0x01	0xD5	0xB2

Ẓ ۷ χ

ş χ	u	˝Ω			› ج	
		Ẓ ۷ ˝Ω	н л			
0x05	0x03	0x02	0x13	0x88	0x44	0xD2

ت › ج CRC › ج Ö CRC › ج щ ۷ Ă ą̃ ą̃ ب ˝

A.5.2 ASCII

ţ ASCII Á Ã ˘ “ 0x3A ” ⅄ “ 0x0D 0x0A ”

Ä ⅃ Φ ţ Á Ã ں ˘ ⊃ ∪ Ʊ ɯ Ω ∿ ASCII Á Ã

Ж ح 4 ţ ţ Ţ ⅃ ł Ţ 4 ţ ţ Ţ ⅃ ASCII Á Ã Ω 7 ţ ذ ỷ

“ A ” Ḱ “ F ” Ʊ ⅇ ˅ ASCII ˋ H Ω LRC › ج › ج

ş ϰ ˙ Ω ʒ Ụ ˊ › ج ⊃ ⅃ Ä ũ › ج Ω ⅃ ⊃ Ã ţ ţ

æ ţ ASCII Á Ã ˅ 4000 0xFA0 ˙ 5 л н 0201(A2.01)

ت ϰ

	˘	ş ϰ		∪		Ω								› ج			
						н ş ϰ				˅ ϽЛ							
⅃	:	0	5	0	6	0	2	0	1	0	F	A	0	4	3	CR	LF
ASCII	3A	30	35	30	36	30	32	30	31	30	46	41	30	34	33	0D	0A

Ʊ › ج LRC › ج ⊃ Ʊ Ö ⅃ 05+06+02+01+0x0F+0xA0

Z ⅃ ϰ

	˘	ş ϰ		∪		Ω								› ج			
						н ş ϰ				˅ ϽЛ							
⅃	:	0	5	0	6	0	2	0	1	0	F	A	0	4	3	CR	LF
ASCII	3A	30	35	30	36	30	32	30	31	30	46	41	30	34	33	0D	0A

ţ н Φ ⅃ Z ⅃ å ˋ H Z 1 ʊ ч Z ı ı

RTU Ã ڭ Z ⅃ å ˋ H 3.5 ⅃ ڭ ژ ⅃ ASCII Ã ڭ Z ⅃ å ˋ H

1ms

A.6 ţ Z

A.6.1 Modbus

Modbusω ı ĩ ح / ˅ ţ н Ω ∪ ˜ Ä

Ä ت ţ н Modbus ţ ˅ H ˊ Ä Ä

ˊ A.1 Modbus ∪

0x03	ح ţ н Ω Ω ˙ Ω ⊃ ↑ õ Ω
0x06	ω ˅ 16 ţ ذ ỷ ţ н Ω ã ã ˙ Ω
0x10	ω ˅ ^ ţ н ã ã ˙ Ω
0x04	ح ţ н Ω ó Ö

A.6.2

ţ н Ω ⅃ ī modbus н ş ϰ ح 0~F Z Ö

0x00~0x0F ⅃ Л ⅃ Â Ω ţ ⅃ Л ẑ ī modbus н ş ϰ H

(00~99 Z 0x00~0x63) E Ω ı ʒ ˙ RAM ʒ Ω ˋ H

ş ϰ ω ح ţ ⅃ “ 1 ”

æ ţ ϰ Ω “ F5.27 ” Z н ş ϰ “ 0x051B ” ϰ

1 E Ω ʒ RAM ˋ H Z ş ϰ “ 0x851B ”

2 E Ω ı ʒ EEPROM(ʒ Ω)ˋ H Z ş ϰ “ 0x051B ”

A.6.3

0x04 ∪ ţ н Ω Z Ω ó ó Ã ţ ˊ

A.2

ˊ A.2 ح Ω ó ˋ H Ω Ã

1	ω ⅇ Ö Ö(ح)
2	ω ⅇ Ö Ö(H)
3	ω Ö Ö(ح)
4	ω Ö Ö(H)
5	E ˙ Ö Ö(ح)
6	E ˙ Ö Ö(H)
7	Ω ó Ö ح ã ˊ A.3
8	Ω ó Ö H ã ˊ A.3

ˊ A.3 Ω ó Ö ţ bit

	00	0	˙
	01	1	Л ˙ Ĭ
	10	2	˙ Ĭ
	000	0	M ˋ H ö ح ˅
	001	1	ȳ ↑ õ ė Ӣ ω
	010	2	ح Ω
	011	3	ı ı ė ح ˅
	100	4	ı ı ė ح
	101	5	ı ı Ä ė ح ˅
	000	0	8 ţ ţ ⅃ ţ Ω ⅃ ʒ
	001	1	16 ţ ţ ⅃ ţ Ω ⅃ ʒ
	010	2	32 ţ ţ ⅃ ţ Ω ⅃ ʒ

	011	3	8
	100	4	16
	101	5	32
	000	0	
	001	1	1
	010	2	2
	011	3	3
	100	4	4
	101	5	5
	00000	0	
	00001	1	
	00010	2	
	00011	3	kW
	00100	4	Hz
	00101	5	kHz
	00110	6	Nm
	00111	7	rpm
	01000	8	s
	01001	9	ms
	01010	10	us
	01011	11	Min
	01100	12	HHr
	01101	13	
	01110	14	kg
	01111	15	
	10000	16	
	10001	17	
	10010	18	Mp
	10011	19	m
	10100	20	cm

	10101	21	mm
	10110	22	kVA
	10111	23	m/min
	11000	24	Mp/s
	11001	25	Hz/s

⚠	4 16 4 3

A.7

Modbus 1

A.4

F0.01 = 2	0x3200	0x00		
		0x01		
		0x02		
		0x03		
		0x04		
		0x05		
		0x06		
		0x07		
		0x08		
	0x3300	bit00	0 1	/
		bit01	0 1	
		bit02	1	
		bit03	1	
		bit04	1	

		bit05 χ ở 1 õ ậ		
		bit06 χ ẩ 1 õ ậ		
		bit07 χ ز ذ 1 õ ậ		
		0x09 χ DC ں 1 õ ậ		
		bit10 χ ج ںẄ 1 õ ậ		
		bit11 χ ỷ ںẄ 1 õ ậ		
		bit12 χ ẻ ậ ẻ ẻ 1 õ ậ		
		bit13 χ ỷ 1 õ ậ		
		bit14 χ ج 1 õ ậ		
		bit15 χ 0		
ẻ ẻ ↑ õ ỉ Ẹ ş χ	0x3400	ژ ẻ ẻ	/	
	0x3401	ẩ ẻ ẻ		
	0x3402	۱		
	0x3403	ژ		
	0x3404	ژ ll		
	0x3405	ج		
	0x3406	ژ '		
	0x3407	ژ ج		
	0x3408	PID ۸		
	0x3409	PID ز		
	0x340A	ژ ۲۱ Ḍ ↑ õ		
	0x340B	ژ ۱ Ḍ ↑ õ		
	0x340C	ج ẩ Ö		
	0x340D	AI1 Ö		
	0x340E	AI2 Ö		
	0x340F	AI3 Ö		
	0x3410	ح ˙ HDI ẻ ẻ		

	0x3411	PLC Ẹ		
ẻ ẻ ȳ ↑ õ ỉ Ẹ ş χ	0x3500	ẩ ẻ ẻ	/	
	0x3501	۱		
	0x3502	ژ ۲۱ Ḍ ↑ õ		
	0x3503	ژ ۱ Ḍ ↑ õ		
	0x3504	PID ۸ Ö		
	0x3505	PID ز Ö		
	0x3506	ج ẩ Ö		
	0x3507	AI1 Ö		
	0x3508	AI2 Ö		
	0x3509	AI3 Ö		
	0x350A	ح ˙ HDI ẻ ẻ		
ẻ ẻ ẻ	0x3600	ẻ ẻ ẻ ẻ ẻ ۱ ẻ ẻ ẻ ẻ ẻ ẻ ẻ ẻ ẻ ẻ ẻ ẻ ẻ ẻ	/	

A.8 Ẹ ۱ ت

Modbus 1 Ẹ u CPU—Ḍ ۱ ۱ Ẹ ۱ Ẹ = ۱ Ö Ẋ

Ẹ ۱ ۱ ۱ h ẻ " 0x03 " , ẻ ş χ ḃ ˊ A.5

ˊ A.5 Ẹ ۱ ت ب "

۱ Ẹ	0x4200	۱ ۱ Ẅ Ẹ ۱ Ẹ Ö	Ẅ ẻ ẻ Ẹ ۱ Ẹ Ö
۱ 1 ۱ Ö	0x4201	۱ 1 ۱ ۱ Ö	۱ Ö 0x4200 Ẅ Ö
۱ 2 ۱ Ö	0x4202	۱ 2 ۱ ۱ Ö	
۱ 3 ۱ Ö	0x4203	۱ 3 ۱ ۱ Ö	
……	……	……	
۱ Max ۱ Ö	0x42xx xx =Max	۱ Max ۱ ۱ Ö	
۱ 1 ۱ Ẹ ۱ ل Ẹ Ẹ	0x4300	۱ 1 ۱ Ẅ Ẹ Ẹ	۱ Ö 0x4200 Ẅ Ö

2	0x4301	2	
3	0x4302	3	
……	……	……	
Max	0x43xx xx= Max-1	Max	

A.9

A.9.1

RS-485-Modbus

RS-485 Modbus

- Modbus

A.9.2

2 4

9600bps AWG26

1000m

20m

40m

A.9.3

“ ”

1

A.9.4

Modbus

RS485-Modbus

RS485-Modbus AWG24 Modbus

A.10

CPU— “ 1 ”

A.6

A.6

0	0x00	
1	0x01	
2	0x02	
3	0x03	
4	0x04	
5	0x05	
6	0x06	1
7	0x08	
8	0x0A	
9	0x0B	
10	0x10	CRC
11	0x11	
12	0x12	
13	0x13	EEPROM
14	0x14	
15	0x15	
16	0x16	
17	0x17	
18	0x18	
19	0x19	
20	0x1A	
21	0x1B	
22	0x1C	Break

B.3

B.1

B.4˙ گ ʒ

ẹ ᴴ ˙ گ ʒ ḅ χ

˜B.2 ˜

V)	kW	Ω	W
380	0.75	750	80
		400	250
		250	250
	3.7	150	400
		100	500
	7.5	75	800
		50	1000
		40	1500
	18.5	30	4000
		30	4000
	30	20	6000
	37		9000
			9000
		10	12000
	75	6.8	18000
	90	6.8	18000
	110		18000

B.5 ◖ Ʒ ᴴ

ẹ ᴴ ʃ] ʃ] ʐ Ꭹ ʐ. Ậ ɨ ʐ ɖ ʂ ẹ ᴴ Ä ʒ ɨ ẹ ᴴ ʂ ◖ ╙ ʐ ~ ″ Ĭ ѿ Ή Ʒ ʇ ĉ Ă ɖ ʂ Ẹ Ӈ ẹ ' ɬ Ậ ɨ Ẕ Ł ◖ Ʒ Ʒ ᴴ ◖ Ʒ ᴴ Ẕ Ф ẹ ᴴ ʃ Ꭹ ◖ Ʒ ᴴ Ă ╙ Ẕ Í ɨ ɖ ẹ ◊ Æ ẹ ᴴ Ή ◖ ╙ Ï ɨ ʒ ᴴ ◖ ╙ Ở 10 Й

ᵝ و ج

ᵝ ᵝ و ج æ ḅ χ

1 ƷЙ ḅ χ ẹ ᴴ ځ

2 ƷЙ Ω ں χ Ä ی ή ∨ ẁ

3 ḅ ɨ Ậ ∨ ẁ Æ ɖ ƷЙ л Ï ѿ ý ɬ Й χ

1 Ḥ Ă ᾰ ' ɬ ɖ Й ת ẁ Ä Ậ ∨

2 ∧ ‰ h ɭ Æ ẹ ᴴ ᾰ

3 ی ᾰ ẁ Ẹ ḅ ᾰ q

4 ɨ ɖ ɨ ب ″ ɭ ע Æ Ä ɨ ẁ

5 ɨ ɨ Ậ ∨ ẹ ᴴ q

6 ɨ ʂ ی ♀ ѣ Ŵ ᾰ Ⴀ Ậ ∨ ẁ

4 ɖ ˚ ừ ѿ ĕ ƷЙ Ό χ

1 ɖ ᵝ ‰ ẻ Ẁ ‰ ᾰ ṇ ɲ Ή ψ

2 Ä ' Ά ɖ ی [redacted] ₒ Ή ψ

3 Ä φ Ό ĕ ʜ ẁ Ƴ ᵝ ɖ Ł ɨ Ḥ Ă ɬ ᾰ Ⴀ Ẹ Æ ừ Ή

5 ɨ ẁ ᵝ ʅ ѿ Ḍ Έ ƷЙ ѿ Ҥ Ό ˜ Ł گ˜ щ ∨ ḅ ѿ ɲ ɲ Ӿ ʃ ת

6 ʅ ɖ ʄ ʂ φ ת ʐ ᵝ ĕ φ

NOARK 诺雅克