## 01#Lh&jAôA×

½ P
(ZlîOY - @ë@ÎK•Kó 6K} ™ % UK,>¬ >¬ ¶ 710043)

©KdB ÆG c <D•E€ ÑEGJ• ...0 U'µK\_"" U%~%«Ò@"2(⊌E C@ë@Î

c 4 <2± - Æ932U $\Gamma$ U892 ½)d = .7 Æ ½1 5L - Æ009-002\$U2023UŽ2-0208-04

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G c <D•E€ ÑEGD"0 "µK\_ Ô c Ñ@ë4› Ì F

FAS

FAS ,

[3]

1

1 2 3

2 3

1 3 1 2

2 3 1

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3 3 3

1 2 3

**OH N⁻-\$** Æ 2021 2021KY74ZD(ZDZX)−02

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2.1 2 3 1 1 2 3 [7] 3 + G c <D•E€ ÑEG • ...0 3\*y.g < + 3 FAS Fig. 1 Boundary diagram of multi-system rail transfer station 3 FAS 1 2 3 FAS 3 IBP FAS [5] 1 FAS 2.2 ž\*U"μK\_"" Ô c - \>®!o GB 50157 1 2 3 2.3 IBP [6] IBP [9] 3 2 D5D1 D4 SA D2D1D4SAD3D1D43ìC K!%~%« œ¿EG [10]

 $+ \qquad \hbox{E C 4 "n/8 +} \\ \label{eq:energy} Fig. 2 \quad \mbox{Optimization instruction flow chart}$ 

1 2 3 3 FAS 3 1 2 FAS FAS [11] FAS 3 3 3 1 3 1 3 FAS 1

+ E /8 x Õ Ô c E C\*bC Ì)3 +

Fig. 3 Optimize circuit schematics of remote manual control =• \$3ì ' " 4 %~%« œ ¿EG N "

Table 1 Fire information communication module of Line 1U3 FAS

| 1         | 3      |
|-----------|--------|
| DO11 1    | DI31 1 |
| DI11( 3 ) | DO31 3 |
| DO12( 1   | DI32 1 |
| DI12 3    | DO32 3 |
| DO13 1    | DI33 1 |
| DI13 3    | DO33 3 |

2 FAS 3

3

3

2

Table 2 Fire information communication module of Line 2U3 FAS

\$3ì '"4%~%« œ¿EGN"

| 2      | 3      |
|--------|--------|
| DO21 2 | DI31 2 |
| DI21 3 | DO31 3 |
| DO22 2 | DI32 2 |
| DI22 3 | DO32 3 |
| DO23 2 | DI33 2 |
| DI23 3 | DO33 3 |

1 2 FAS FAS 1 FAS 2

FAS

3ìC Ôch€\-T

3

4.1 1 2 FAS DC24 V

DC 24 V 1 2 3 DC 24 V 3

DC 24 V

1 2 3 1 2

1

2 3 4

+ ¿J. í"x \ Õ Ô c Ì)3 +

Fig. 4 Starting control schematic of interlock detection

1 2 2 2 IBP [12]

4.2

1

2

3

4 ŒA 1 FAS

2

4

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rlt ^YLG H**DH 131 H23**2~%≪7 ÕÒ@"2(4 @ë@Î>ñ**ï§10** E

rJt †3ú \* GAd ; CM • • E0~4Ñ " $\mu$ K\_ Ô c Ñ+ $\pm$ @ë4 $^{\circ}$ 3 ½rtal $\hat{A}$ E0~\*b!A U' I G IUGJ PI @JDCE

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rMt ^YL H I PD DG HODDî@ë@ÎK\_%~4 ó r j t E

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rPt²g Eù/D•E€ ÑEG3ìC • ...0 %~% «5• Õæ urlabê\ů/D•E€ ÑEG-A/£U' IG HJIOH? jl @OODDO BIP HE

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Optimization design of fire pump control in multi-system rail transit transfer station

## Fu Wengang

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Abstract: In order to improve the rationality of fire control de sign of multi-system rail transit project, realize the sharing of fire resources and the intercommunication of fire information among lines in the transfer station, and effectively reduce the overall construction cost of the project, the control technology scheme of multi-system rail transit line common fire pump is studied. When there are multiple fire control rooms sharing the same group of fire pumps, the fire information exchange be tween multiple lines and the fire pump interlock control method is adopted to realize the uniqueness of the control body of the common fire pump. Compared with the traditional control mode of each line, the reliability and safety of the fire pump control are further improved. At the same time, the line system design, construction and fire equipment management responsibility in terface are defined, so as to get suitable fire pump control opti mization design scheme for multi-system rail transit transfer sta

Key words: multi-system rail; transfer station; fire pump; fire alarm system; optimization design

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