

???SIEMENS????????????????????????????????100??
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????????????IP55????????????????????
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——????????????4*90??
??IP55????????
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N3??20????CPU: 7????CPU(CPU
312,CPU 314,CPU 315-2 DP,CPU 315-2 PN/DP,CPU 317-2 DP,CPU 317-2
PN/DP,CPU 319-3 PN/DP) 6 ????? CPU???????????? I/O??CPU 312C?CPU
313C?CPU 313C-2 PtP?CPU 313C-2 DP?CPU 314C-2 PtP?CPU 314C-2
DP? 5 ?????? CPU?CPU 315F-2 DP?CPU 315F-2 PN/DP?CPU 317F-2
DP?CPU 317F-2 PN/DP?CPU 319F-3 PN/DP? 2????CPU(CPU 315T-2 DP,
CPU 317T-2 DP) 18?CPU??-25°C ? +60°C????????????????
???????????????????????????????????? SIMATIC S7-300 ?????????? CPU??????? CPU
????????? CPU? ????????????? CPU ?????? CPU? CPU 312????????? CPU
314???????????????????????????????????? CPU 315-2 DP????????/????????????????PROFIBUS
DP????????????? CPU 315-2 PN/DP????????/????????????????PROFIBUS
DP?PROFINET IO????????????????PROFINet???????????????????????????????? CPU
317-2 DP????????????????????PROFIBUS DP???????????????? CPU 317-2
PN/DP????????????????????PROFIBUS DP?PROFINET
IO????????????????PROFINet???????????????????????????????? CPU 319-3
PN/DP????????????????????PROFIBUS DP?PROFINET
IO????????????????PROFINet???????????????????????????????? CPU 312C???????????? I/O
???????????????? CPU CPU 313C???????????????? I/O ???? CPU CPU 313C-2
PtP???????????? I/O ?2???????????????????? CPU CPU 313C-2 DP???????????? I/O
?PROFIBUS DP ????????????????? CPU CPU 314C-2 PtP???????????????? I/O
?2???????????????????? CPU CPU 314C-2 DP???????????????? I/O?PROFIBUS DP
???????????????????? CPU CPU 315F-2 DP????? PROFIBUS DP
????????????????????/???????????????? CPU 315F-2
PN/DP????????/????????????????PROFIBUS DP?PROFINET
IO????????????????PROFINet???????????????????????????????? CPU 317F-2
DP????????????????????PROFIBUS DP???????????????????? CPU 317F-2
PN/DP????????????????????PROFIBUS DP?PROFINET
IO????????????????PROFINet???????????????????????????????? CPU 319F-3

PN/DP????????????????PROFIBUS DP?PROFINET
IO????????????????????PROFInet?? 6ES7
151-1AA05-0AA1 ???????? IM151-1?90????????????????????????????6ES71511AA050A
B0*1+6ES79720BA120XA0*1? 6ES7 151-1AA05-0AA4 ???????? IM151-1?35
????????????????????6ES71511AA050AB0*1+6ES79720BA410XA0*1? 6ES7
151-1AA05-0AA5 ???????? IM151-1????????????????????????????6ES71511AA050
AB0*1+6ES79720BA520XA0*1? 6ES7 151-1AA05-0AB4 ???????? IM151-1?3
5????????????????????6ES71511AA050AB0*1+6ES79720BB410XA0*1? 6ES7
151-1AA05-0AB5 ???????? IM151-1????????????????????????????6ES71511AA050A
B0*1+6ES79720BB520XA0*1? 6ES7 151-1AB02-0AB0 ET 200S IM 151
??????? 6ES7 151-1BA02-0AB0 ?????????? IM151-1 6ES7 151-1CA00-0AB0
????????? IM151-1 6ES7 151-7AB00-0AB0 ET 200S IM 151 ?CPU ???????
6ES7 138-4HA00-0AB0 DP-??????for CPU only) ????????? 6ES7
131-4BB01-0AA0 2???????? 24VDC ?? ?5?? 6ES7 131-4BB01-0AB0 2????????
24VDC ??? ?5?? 6ES7 131-4BD01-0AA0 4???????? 24VDC ?? ?5?? 6ES7
131-4BD01-0AB0 4???????? 24VDC ??? ?5?? 6ES7 131-4BD51-0AA0
4???????? 24VDC ?? ?5?? 6ES7 131-4CD00-0AB0 4???????? UC 24V...48V ?
LED SF (???)????5? 6ES7 131-4EB00-0AB0 2???????? 120VAC ?5?? 6ES7
131-4FB00-0AB0 2???????? 230VAC ?5?? 6ES7 131-4RD00-0AB0 4????????
DC 24V NAMUR 15 MM ???LED SF ?????5? ????????? 6ES7 132-4BB01-0AA0
2???????? 24VDC 0,5A ?? ?5?? 6ES7 132-4BB01-0AB0 2???????? 24VDC 0,5A
??? ?5?? 6ES7 132-4BD02-0AA0 4???????? 24VDC 0,5A ?? ?5?? 6ES7
132-4BB31-0AA0 2???????? ??? ??24V/2A?????5? 6ES7 132-4BB31-0AB0
2?????????????? ??24V/2A?????5? 6ES7 132-4BD32-0AA0 4???????? 24VDC 2A
?? ?5?? 6ES7 132-4FB01-0AB0 2???????? ??120/230V?????5? 6ES7
132-4HB01-0AB0 2???????? 24VDC/230VAC 5A ?5?? 6ES7 132-4HB10-0AB0
2???????? ??????24V-48V/5A????24V-230V/5A?5?? ????????? 6ES7
134-4FB01-0AB0 2???????? ????? ?? 6ES7 134-4FB52-0AB0 2?????????????? ??
+/-10V?????????? 1MS 6ES7 134-4LB02-0AB0 2???????? ????? ??? (16?) 6ES7
134-4GB01-0AB0 2???????? ????? ?? 2?? 6ES7 134-4GB52-0AB0 2?????????????
I-2? 4 - 20MA?????????? 1MS? 6ES7 134-4GB11-0AB0 2???????? ????? ?? 4??
6ES7 134-4GB62-0AB0 2?????????????? I-4? 4 - 20MA?????????? 1MS 6ES7
134-4MB02-0AB0 2???????? ????? ??? (16?) 2?? 6ES7 134-4JB51-0AB0
2???????? RTD?????? 6ES7 134-4JB01-0AB0 2???????? ?????? 6ES7
134-4NB01-0AB0 2???????????????? ????????????????? 6ES7 134-4NB51-0AB0
2???????????????? RTD???????? ????????????? ????????? 6ES7 135-4FB01-0AB0
2???????? ????? ?? 6ES7 135-4GB01-0AB0 2???????? ????? ?? 6ES7
135-4LB02-0AB0 2???????? ????? ??? (16?) 6ES7 135-4MB02-0AB0 2?????????

???? ??? (16?) ???? 6ES7 138-4DA04-0AB0 1????24V/100KHZ 6ES7
138-4DB03-0AB0 SSI ?????? 6ES7 138-4DD00-0AB0 2 Pulse (pulse width
modulation, timer) 6ES7 138-4DC00-0AB0 STEP1 ?????? 6ES7
138-4DF01-0AB0 1 SI ???? (RS232 RS422 RS485 ????) 6ES7
138-4DF11-0AB0 1? SI ??????????RS232/422?485 MODBUS/USS 6ES7
138-4DL00-0AB0 1 -U ?? ?????? ?? 5V/24V ?????? 6ES7 138-4GA00-0AB0 4
?IQ-SENSE ??24VC????5? ????? 6ES7 193-4CC20-0AA0 TM-P15S23-A1 f.
PM//2x3 ?????????? 6ES7 193-4CC30-0AA0 TM-P15C23-A1 f. PM/2x3
???????????? 6ES7 193-4CD20-0AA0 TM-P15S23-A0 f. PM/2x3 ??????????
6ES7 193-4CD30-0AA0 TM-P15C23-A0 f. PM/2x3 ?????????? 6ES7
193-4CE00-0AA0 TM-P15S22-01 f. PM/2x2 ???? ?????? 6ES7
193-4CE10-0AA0 TM-P15C22-01 f. PM/2x2 ?????????? 6ES7
193-4CA20-0AA0 TM-E15S24-A1 f. EM/2x4 ?????????? ?5?? 6ES7
193-4CA30-0AA0 TM-E15C24-A1 f. EM/2x4 ?????????? ?5?? 6ES7
193-4CB20-0AA0 TM-E15S24-01 f. EM/2x4 ?????????? ?5?? 6ES7
193-4CB30-0AA0 TM-E15C24-01 f. EM/2x4 ?????????? ?5?? 6ES7
193-4CB00-0AA0 TM-E15S23-01 f. EM/2x3 ?????????? ?5?? 6ES7
193-4CB10-0AA0 TM-E15C23-01 f. EM/2x3 ?????????? ?5?? 6ES7
193-4CA40-0AA0 TM-E15S26-A1 für EM/2x6 ?????????? ?5?? 6ES7
193-4CA50-0AA0 TM-E15C26-A1 für EM/2x6 ?????????? ?5?? 6ES7
193-4JA00-0AA0 SIMATIC DP?ET 200S???????? ?? 6ES7 193-4GA00-0AA0
????TM-P?TM-E????? 3 x 10 MM,??5? 6ES7 193-4GB00-0AA0
????????????????????????????5? ET200M: 6ES7 153-1AA03-0XA1 IM153-1??????90
????????????????????6ES71531AA030XB0*1+6ES79720BA120XA0*1? 6ES7
153-1AA03-0XA4 IM153-1?????35????????????????????6ES71531AA030XB0*1
+6ES79720BA410XA0*1? 6ES7 153-1AA03-0XA5
IM153-1????????????????????????????
?6ES71531AA030XB0*1+6ES79720BA520XA0*1? 6ES7 153-1AA03-0XB4 I
M153-1?????35????????????????????6ES71531AA030XB0*1+6ES79720BB410X
A0*1? 6ES7 153-1AA03-0XB5 IM153-1????????????????????
?6ES71531AA030XB0*1+6ES79720BB520XA0*1? S7-300????PLC????????
CPU????????IO????????????????????S7-300????CPU????????IO????
???????? ????PLC???S7-300??? 20????CPU: 7????CPU(CPU 312,CPU
314,CPU 315-2 DP,CPU 315-2 PN/DP,CPU 317-2 DP,CPU 317-2
PN/DP,CPU 319-3 PN/DP) 6 ???? CPU???????? I/O??CPU 312C?CPU
313C?CPU 313C-2 PtP?CPU 313C-2 DP?CPU 314C-2 PtP?CPU 314C-2
DP? 5 ?????? CPU?CPU 315F-2 DP?CPU 315F-2 PN/DP?CPU 317F-2
DP?CPU 317F-2 PN/DP?CPU 319F-3 PN/DP? 2????CPU(CPU 315T-2 DP,

CPU 317T-2 DP) ???PLC S7-400????????? PLC S7-400????????? ???PLC
S7-300????????? S7-300 ??????PLC ?????????????????? ???PLC
S7-200????????? S7-200??PLC????????????????????????????????? ???PLC
S7-1200????????? SIMATIC S7-1200 CPUSIMATIC S7-1200 ??? CPU
?????????CPU 1211C?CPU 1212C ? CPU1214C S7-400
PLC????????????????????? S7-400 PLC???
???CPU??
????????????????? 4? ??????
??? “SIMATIC NET”?????
??? 5?
?????HMI??? HMI?????PLC???TD200?????????
OP3?OP7?OP17?????/??????OP27?OP37?????????????TP7?TP27/37?TP170A/
B??SIMATIC???PC670?????????PC???????HMI?????HMI?????????????ProTool
?????????PLC??? SIMATIC S7????? ?????????? ?1?????????
?????????????????PLC?PC?????????????????????????????????STEP 7?????SIMATIC
S7???S7-300/400?C7 PLC?SIMATIC
WinAC??PC?????????????????????????????STEP
7-Micro/WIN??Windows?????????S7-200??PLC????????????? SIMATIC S7?????
????????? ??PC?????
??PC?????WinAC?????????????????????????PLC?????????????????????Windows NT4.
0?????SIMATIC?????????????????WinAC?????PLC?????????PLC?????????????????????
?????????PLC?????????????????PC?????????PLC?????????WinAC?SIMATIC
S7?????????????????????????SIMATIC?????????STEP
7?????????????????WinAC?????????S7????????? SIMATIC S7????? ?????????? ??????
?????????????????????????????????HMI??SCADA?????????????????????????????????????P
roTool?????????????WinCC?
ProTool?????????HMI?????????????????????PC?????????STEP 7??ProTool?????????Pr
oTool/lite?????????????????OP3?OP7?OP17?TD17??ProTool/Pro?????????PC?????
?HMI???ProTool/Pro?????????????????????Windows??????
WinCC?????????????????????????SCADA?Supervisory Control and Data
Acquisition?????????????PC?????WinCC?????????????????STEP 7?????????????PLC
???
??????WinCC5.0?????????????IE?????????????
???SIMATIC??PLC?????1958?????C3,S3,S5,S7?????????????????????????????
?????SIMATIC?PLC?6??????SIMATIC?PLC?6?
1?????????????????1975?????????SIMATIC S3?????????????????????????????
2?1979??S3???SIMATIC S5????????????????????????????? 3?20??80?????S5?????????—
—U??PLC?????????S5-90U?95U?100U?115U?135U?155U? 4?1994?4??S7????

S7-400/S7-400H/S7-400F/FH S7-400 ? SIMATIC ??????????
PLC???????????????? (TIA) ?????S7-400
?? S7-400
???????????????? PLC ??? CPU ?????????????????????
???????????????????? SIMATIC HMI ???
??
????? ????????????????????????????????????? SIMATIC S7-1200 ?????? PROFINET ??????????
?? ?????
?????????????. ????????????????? SIMATIC STEP 7 Basic????? SIMATIC WinCC
Basic ? SIMATIC S7-1200 ??????SIMATIC STEP 7 Basic ?????????????????????
??? "IntelliSense"????????????????????
?? SIMATIC STEP
7 ?????????????????????????? SIMATIC S7-1200 CPU SIMATIC S7-1200
???????????????????? CPU 1211C?CPU 1212C ? CPU
1214C?? CPU ?????????????????????????
I/O?? CPU ????????????????????????? I/O ???CPU 1212C
??? 2 ?????????CPU 1214C ??? 8 ????????????????? SIMATIC S7-1200 CPU
???????????????????? 3 ??? SIMATIC S7-1200 CPU ???????
??? SIMATIC S7-1200 ??? 35 mm DIN
??SIMATIC S7-1200
?? SIMATIC
S7-1200 ????????????????????????? SM321????????????????????DC24V??9????????????????????60~6
Hz??10?1????6Hz????????????????????OPC?????PLCS7????????????????????????????????????
????????????2?1979??S3??SIMATIC S5????????????????????????????????????18????????????????????
??254????????????????????????????????????
????????????????????????????25:????????????????????????????????????Power-
UpReset???PLC?????????RUN????????? ?????????????????????????