Appendix A
Specifications

- Built–In Power Supply
- Output I/O Service
- External Power Requirements
- Physical Characteristics
- Electrical Characteristics
- Circuit Characteristics
- Environmental Characteristics
- End User Part Numbers

Controller Specifications

Built–in Power Supply

Input Power*	115 Vac ± 15%	Frequency 47–63Hz
	230 Vac ± 15 %	Frequency 47–63Hz
	24 Vdc ± 15%	Isolated Source
	125 Vdc ± 20%	Isolated Source

*See current requirements under "External Power Requirements" (below).

Input Watts	44.0W @ 115/230VAC (381E/385E/480E/480K) 37.5W@ 125VDC (385D/485D) 64W@ 115/230VAC (685E/785E/785K) 62.5W @ 125VDC (785D) 35.0W @ 24VDC (381E/385E/480E/480K) 60.7W @ 24VDC (685K/685D/785K/785D)
Output Watts	25.0W @ 115/230VAC (381E/385E/480E/480K) 25.0W@ 125VDC (385D/485D) 60.0W@ 115/230VAC (685E/785E/785K) 60.0W @ 125VDC (785D) 25.0W @ 24VDC (381E/385E/480E/480K) 60.0W @ 24VDC(685K/685D/785K/785D)
Fuses	0.750A, 3A SB Buss, Not customer replaceable (38x/48x) 1.5A, 3A SB Buss, Not customer replaceable (68x/78x)
Holdup	32ms for CPU from POWER OK going inactive
Inrush	6.4A AC, (thyristor regulator) (38x/48x) 10A AC, (68x/78x) 6.44A AC, (785D)

Output to I/O Service

38x Current*
- V1 5Vdc I/O 3.5A max
- V2 4.3Vdc I/O 3.5A max

48x Current*
- V1 5Vdc I/O 3.5A max
- V2 4.3Vdc I/O 3.5A max
- V3–5Vdc I/O 0.250A max

* When added, any combination of V1 and V2 must not exceed 3.5 Amperes.

68x/78x Current*
- V1 5Vdc CPU 1.0A max
- V2 5Vdc System Options & I/O 7.0A max
- V3 4.3Vdc I/O 6.0A max
- V4–5Vdc I/O 0.5A max

* The combination of 2,3 and 4 cannot exceed 7.0 Amperes.

External Power Requirements

AC Isolation Transformer	100W (38x/48x) 0.5kVA (68x/78x)
Ext 24Vdc P.S.	31W nom, @ 24Vdc (38x/48x) (24A peak); or 70W nominal (68x/78x) (24A peak)
RI/OHead Load	1.6A max @ 5VDC
I/O Module Loads	See the *Modicon Programmable Controller Systems Manual* (GM–0984–SYS) or the data sheet shipped with your module.

Physical Characteristics

Dimensions

WxHxD inch	2.54 x 10.5 x 8 (38x/48x)
WxHxD (mm)	(39.4 x 266 x 203) (38x/48x)
WxHxD inch	3.10 x 10.5 x 8 (68x/78x)
WxHxD (mm)	(79.0 x 266 x 203) (68x/78x)

Weight

4 lbs, 5 oz (38x/48x)
5 lbs, 5 oz (68x/78x)

Slots Required

1 (38x/48x)
1.5 (68x/78x)

Electrical Characteristics

Static Discharge 15kV to all surfaces

Magnetic 20 Gauss field inside Helmholtz Coil, 0.25 to 8 pps

Agency Approval Designed to meet UL, CSA, VDE agency safety requirements

Surge Withstand Per IEEE 472–1974, ANSI C37.90a

Circuit Characteristics

Scan Rate 1.0 – 2.5 ms/K words of user logic

Throughput Varies according to controller type and logic mix. Refer to the section regarding Optomize Mode (685E/785E ONLY) located in Chapter One

Memory Flash RAM Memory technology and Static Volatile RAM

Time–of–Day Clock ± 1 sec/day @ constant 25C
± 3 sec/day with varying temperature 0–40C
± 8 sec/day with varying temperature 0–60C

Real-time Clock 10 msecs ± 0.1%

Local I/O Pts.

(38x/48x)	512
(68x/78x)	1024

Remote I/O

(48x)	Up to 6 drops, each drop 512 bits in/ 512 bits out
(68x/78x)	16, or 31 drops, each drop 512 bits in/ 512 bits out 16 drops @ 1K/1K, or 31 drops @ 512/512 (local still has 1K/1K)

Total I/O Cap

(48x)	6 Remote Drops plus 1 Local 512 Other Drops up to Defined Max. I/O Pts.
(68x/78x)	31 Remote Drops plus 1 Local 512 or 1024* Other Drops up to Defined Max. I/O Pts. *Defined by S908 Executive in use.

Environmental Characteristics

Temperature	Operating: 0 –> 60C
Storage:	–40 –> +80C
Humidity	0–95% Non–condensing
Max Wet Bulb	Non–operating: Non–condensing Operating: 85 deg. F
Altitude	10,000 feet max
Shock	+ 10g's, 11ms, 3 pulses per axis

Vibration (Operating)	5Hz to 50Hz @ .005 in D.A., 30 min/axis 50Hz to 500Hz @ 0.625 g's, 30 min/axis
Vibration (Passive)	10Hz to 50Hz @ .029 g's/Hz 50Hz to 300Hz @ .029 g's/Hz, –8dB/octave

End User Part Numbers

Table 9 End User Part Numbers

PART NUMBER	DESCRIPTION
Controllers	
PC–E984–381	CPU/PS 115/220VAC 24VDC
PC–E984–385	CPU/PS 115/220VAC 24VDC
PC–D984–385	CPU/PS 125/24VDC 24VDC
PC–E984–480	CPU/PS 115/220VAC 24VDC
PC–E984–485	CPU/PS 115/220VAC 24VDC
PC–K984–485	CPU/PS 115/220VAC 24VDC, memory protect key
PC–E984–685	CPU/PS 115/220VAC 24VDC
PC–E984–785	CPU/PS 115/220VAC 24VDC
PC–D984–785	CPU/PS 125/24VDC
PC–K984–785	CPU/PS 115/220VAC 24VDC, memory protect key
RI/O	
AS–S908–110	S908 RI/O Module (single cable)
AS–S908–120	S908 RI/O Module (dual cable)
AS–E908–016	Executive Cartridge for S908 (16 drops)
AS–E908–131	Executive Cartridge for S908 (31 drops)
AS–S911–801	Executive Cartridge for S911
AS–J890–xxx	RI/O Receiver
AS–J892–xxx	RI/O Receiver w/ ASCII Ports
AS–P890–xxx	RI/O Receiver w/ built–in power supply
AS–P892–xxx	RI/O Receiver w/ built–in power supply and w/ ASCII Ports

Power Supplies

AS–P810–xxx	RI/O Power Supply
AS–P884–xxx	Main Power Supply

Housings

AS–H819–209	Primary 19" Housing w/ systems bus
AS–H827–209	Primary 27" Housing w/ systems bus
AS–H819–xxx	Secondary 19" Housing w/ Ourbus only
AS–H827–xxx	Secondary 27" Housing w/ Ourbus only
AS–H810–209	Primary 10" Housing w/ systems bus
AS–H810–100	Secondary 10" Housing w/ Ourbus bus

Cables

AS–W952–012	IBM PC/AT to 984–X80
AS–W954–006	Modem to 984–X80
AS–W955–012	IBM PC/XT to 984–X80
AS–W955–025	IBM PC/XT to 984–X80
AS–W956–012	IBM PC/AT to 984–X80
AS–W956–025	IBM PC/AT to 984–X80
AS–W957–003	J878 to 984–X80
AS–W958–001	25–pin Adaptor to 984–X80
AS–W801–0xx	Housing interconnect signal cable
AS–W802–012	Housing interconnect power cable
AS–W804–0xx	Housing interconnect aux power cable
AS–W808–0xx	Housing interconnect power cable
AS–W960–012	Panelmate to 984–X80