

Table A- 33 Power supply

Technical data		CPU 1212C AC/DC/Relay	CPU 1212C DC/DC/Relay	CPU 1212C DC/DC/DC
Voltage range		85 to 264 V AC	20.4 V DC to 28.8 V DC	
Line frequency		47 to 63 Hz	--	
Input current (max. load)	CPU only	80 mA at 120 V AC 40 mA at 240 V AC	400 mA at 24 V DC	
	CPU with all expansion accessories	240 mA at 120 V AC 120 mA at 240 V AC	1200 mA at 24 V DC	
Inrush current (max.)		20 A at 264 V AC	12 A at 28.8 V DC	
I² t		0.8 A² s	0.5 A² s	
Isolation (input power to logic)		1500 V AC	Not isolated	
Ground leakage, AC line to functional earth		0.5 mA max.	--	
Hold up time (loss of power)		20 ms at 120 V AC 80 ms at 240 V AC	10 ms at 24 V DC	
Internal fuse, not user replaceable		3 A, 250 V, slow blow		

Table A- 34 Sensor power

Technical data	CPU 1212C AC/DC/Relay	CPU 1212C DC/DC/Relay	CPU 1212C DC/DC/DC
Voltage range	20.4 to 28.8 V DC	L+ minus 4 V DC min.	
Output current rating (max.)	300 mA (short-circuit protected)		
Maximum ripple noise (<10 MHz)	< 1 V peak to peak	Same as input line	
Isolation (CPU logic to sensor power)	Not isolated		

A.5.3 Digital inputs and outputs

Table A- 35 Digital inputs

Technical data	CPU 1212C AC/DC/Relay, DC/DC/Relay, and DC/DC/DC
Number of inputs	8
Type	Sink/Source (IEC Type 1 sink)
Rated voltage	24 V DC at 4 mA, nominal
Continuous permissible voltage	30 V DC, max.
Surge voltage	35 V DC for 0.5 sec.
Logic 1 signal (min.)	15 V DC at 2.5 mA
Logic 0 signal (max.)	5 V DC at 1 mA
Isolation (field side to logic)	707 V DC (type test)
Isolation groups	1
Filter times	us settings: 0.1, 0.2, 0.4, 0.8, 1.6, 3.2, 6.4, 10.0, 12.8, 20.0 ms settings: 0.05, 0.1, 0.2, 0.4, 0.8, 1.6, 3.2, 6.4, 10.0, 12.8, 20.0
HSC clock input rates (max.) (Logic 1 Level = 15 to 26 V DC)	100/80 kHz (Ia.0 to Ia.5) 30 /20 kHz (Ia.6 to Ia.7)
Number of inputs on simultaneously	4 (no adjacent points) at 60 °C horizontal or 50 °C vertical 8 at 55 °C horizontal or 45 °C vertical
Cable length (meters)	500 m shielded, 300 m unshielded, 50 m shielded for HSC inputs

Table A- 36 Digital outputs

Technical data	CPU 1212C AC/DC/Relay and DC/DC/Relay	CPU 1212C DC/DC/DC
Number of outputs	6	
Type	Relay, mechanical	Solid state - MOSFET (sourcing)
Voltage range	5 to 30 V DC or 5 to 250 V AC	20.4 to 28.8 V DC
Logic 1 signal at max. current	--	20 V DC min.
Logic 0 signal with 10 K Ω load	--	0.1 V DC max.
Current (max.)	2.0 A	0.5 A
Lamp load	30 W DC / 200 W AC	5 W
ON state resistance	0.2 Ω max. when new	0.6 Ω max.
Leakage current per point	--	10 μ A max.
Surge current	7 A with contacts closed	8 A for 100 ms max.
Overload protection	No	
Isolation (field side to logic)	1500 V AC (coil to contact) None (coil to logic)	707 V DC (type test)
Isolation groups	2	1
Isolation (group-to-group)	1500 V AC ¹	--
Inductive clamp voltage	--	L+ minus 48 V DC, 1 W dissipation
Switching delay (Qa.0 to Qa.3)	10 ms max.	1.0 μ s max., off to on 3.0 μ s max., on to off