

This is a highly subjective comparison chart for PLCs available on the market per 2007. It does not contain every single PLC brand in existence out there. I am confident though that I have not omitted a PLC brand with a market share above 1%.

The information is gathered from the web, from experience (for Siemens and AB), and from hear-say. Do not take it as a 100% correct and profesional market survey (that would cost top dollar to make).

I do not guarantee the correctness of the data. The information is subjective and presented "as is".

Enjoy. Jesper M. Pedersen
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Brand name		Rockwell / Allen Bradley	Mitsubishi	Omron	Grp. Schneider / Modicon	GE Fanuc	Moeller	Hitachi	Sharp	B & R	ABB	Koyo (AD)	Beckhoff	Toshiba	LG	Phoenix Contact	Wago	Panasonic (Matsushita)	VIPA	Bosch-Rexroth	
Latest and greatest PLC types.	S7-400, S7-300	ControlLogix, CompactLogix	Q series	CS1, CV1	Premium, Quantum, M340	RX7i, RX3i	XC100, XC200	H series, EH-150	JW300	X20	AC500	DL205, DL405	CX range, IPC ranges.	V seies, SE2/ST2	K series, XGT series, GM series	RFC430, RFC450	758	Fpsigma, FP2	300V, 300S	CML65	
Homepage(s) Warning: Clicking on the cell will normally open the linked website in your webbrowser.	 https://smallautomation.siemens.com	www.rockwellautomation.com	www.mitsubishi-automat.com	www.ia.omron.com/	www.telemecanique.com	www.gefanuc.com/as_en	www.moeller.net/en/indu	www.hitachi-ds.com/en/r	www.sharp-world.com/sr	www.br-automation.com	www.abb.com/	www.koyo-ele.co.jp/english	www.beckhoff.com	www.toshiba.com/ind/	www.lgis.com/main/mair	www.phoenixcontact.com	www.wago.com/start/star	www.mew.co.jp/ac/e/	http://www.vipa.de/en/home/	http://www.boschrexroth.com/	
PLC Market share per 2003 (source: Milestones in Automation, Arnold Zankl, ISBN 3-89578-259-9)	 28.8 %	www.ab.com/ 19.1 %	14.3 %	8.3 %	8.3 %	3.7 %	2.4 %	1.9 %	1.9 %	1.5 %	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	<1%	
Most important market(s)	 the world	US	Japan	Japan - East asia	France	US	EU	Japan	Japan	EU	None specifically	Japan - US	EU	Japan	South Korea	EU	EU	Japan	EU	EU	
Other significant market(s)	 the world	Rest of the world	Rest of the world	Rest of the world	EU - US	?	none	none	none	none	Rest of the world	none	Rest of the world	Rest of the world	none	Rest of the world	Rest of the world	Rest of the world	?	US	
Weak market(s)	 none	none	none	none	Rest of the world	?	Rest of the world	Rest of the world	Rest of the world	Rest of the world	none	Rest of the world	none	none	Rest of the world	none	none	none	none	?	
Support for IEC61131-3 programming languages	 Partial (ST+SFC)	All	All (*5)	Partial (LD+ST+SFC+FBD)	All	Partial (IL+ST+LD+FBD)	All	All	none	All	All	none	All	Partial (LD+FBD) *10	All	All	All	All	Partial (ST+SFC)	All	
Redundancy solutions	 yes	yes	yes	none	yes	yes	none	none	none	none	none	none	none	?	yes	none	none	none	none	none	
Integrated machine safety solutions	 yes	yes	non-integrated (*1)	non-integrated (*1)	non-integrated (*1)	?	none	none	none	none	none	non-integrated	non-integrated	yes	none	non-integrated	none	yes (*8)	none	none	yes
Integrated Motion solutions	 limited")	yes ("unlimited")	yes (96 axes)	non-integrated	yes (*3)	yes (*9)	none	yes (*9)	none	yes (*9)	none	non-integrated	yes ("unlimited")	none	yes (*9)	none	none	yes (112 axes)	?	yes	
HMI solutions	 many (*2)	many (*2)	many	some	many (*6)	some	some	some	some	some	some	many	some (*7)	some	some	none	none	some	some	many	
DCS solution	 yes	yes	yes	none	none	yes	none	none	none	none	yes	none	none	some	yes	none	none	none	none	none	
Electrical components	 many	many	some	many	many	none	many	none	none	none	many	many	none	none	many	some	some	some	none	none	
Primary bus "families" (native)	 Profibus, Profinet	ControlNet, DeviceNet, Ethernet/IP	Melsecnet, CC-Link,	CompoBus/S, CompoNet, Devicenet	Modbus, Modbus TCP	Genius, Devicenet, CanOpen	?	Ethernet ?, Devicenet	CanOpen, Ethernet Powerlink	Profibus, Devicenet, Arcnet, Modbus, S31, Ethernet ?	Proprietary remote-i/o.	CanOpen, EtherCat	?	Ethernet ?, Devicenet	Interbus, (Profinet)	Profibus, CanOpen, Devicenet	S-Link, MEWNET- F	Profibus		Profibus, ethernet/IP, SERCOS, SERCOS III	
Secondary networking/bus families.	 Asi	ProfiBus (*4)	Profibus, Devicenet, Asi		CanOpen, Asi		Profibus, Devicenet		Can, Devicenet, Profibus		Modbus	Profibus, DeviceNet, others..						CanOpen, Interbus	Devicenet, CanOpen, Interbus		
Comments (warning: highly subjective).	 Because of its market share and product range Siemens is the "Microsoft of the automation world".	The "other" player in the automation world. Too much dependent on the US market though. High quality of both software and hardware is handicapped by being the market leader when it comes to the price level.			Website is ridiculously slow.	Has a bewildering range of PLCs. Not only RX but also two "series 90" and "VersaMax". Surprisingly poor website.	PLC is a 3S CoDeSys variant. I wonder if the respectable 2.4% marketshare is because all the "smart relays" are counted as well ?	No presence outside japan. Poor website.	No presence outside japan. PLC appears obsolete when compared with the competition. Poor website. Woe to the end-customer who purchases a japanese machine with this PLC.		Weak in the PLC segment, strong in the DCS segment.	PLC products are in the low end of the water. Low performance, small program size and i/o count, weak networking. Translates into low price.	PLC is a 3S CoDeSys variant. Represented everywhere and growing strongly, but still small in the market.	Poor website.	Dont know much about them. Impressive but also confusing portfolio with too many PLC types for such a small player. Aptly called "the Siemens of Korea".	Website ends often in "dead ends". PLC products are secondary to the other product lines. Strong as a supplier of i/o blocks.	PLC is a 3S CoDeSys variant. PLC products are secondary to the other product lines. Strong as a supplier of i/o blocks.	Only the low to medium-low i/o count segment is covered.	Compatible in large degree, though not 100%, with Siemens S7-300.	PLC is a 3S CoDeSys variant. PLC offering is new - about 2 years now. Very fast and high-powered, strong motion. Mostly aimed at high-end application, little available for micro-PLC market	
Notes.	*1: Safety is not part of standard PLC solution (but there is a separate safety PLC line). *2: There are problems with latest generation software. These problems are slowly being resolved. Status as of today is that the software is usable, but we definitely havent arrived at "HMI heaven" yet. *3: Uses separate PLCopen library for motion *4: Profibus via 3rd party products. *5: In parallel with IEC, there are also "traditional" programming languages. *6: HMI solutions are split into 2 products (Vijeo & Citect) that will run side-by-side for quite some time. *7: Has a full range of panel PCs with both WinCE and WinXP embedded, For WinXP there is a HMI solution, but not for WinCE. Beckhoff's own "Target Visu" for Win CE has only minimal HMI functionality. *8: not sure if the profisafe terminals can be used with a Wago PLC. There are safety functions in CoDeSys, so in theory it should be possible. INFORMATION WANTED TO CONFIRM OR DENY THIS. *9: INFORMATION WANTED TO CONFIRM OR DENY THIS. ALSO IF THERE ARE ANY LIMITATIONS OR PITFALLS. *10: V-series only.																				

Listing of PLC brands that are continuing an otherwise discontinued PLC type.			
Brand name	CTi	INAT	SoftPLC
Website	http://www.controltechnology.com/	http://www.inat.de/index.php?id=34	http://www.softplc.com/
At least partially backwards compatible with:	Texas Instruments TI-505.	Siemens S5-115U, S5-135U, S5-155U.	Allen Bradley PLC2, PLC3, PLC5, SLC500.
Comments:	Has a very substantial range of TI-505 compatible parts, CPUs, PSUs, racks and i/o modules. Only CPUs. Can work with either S5 or S7 code. Software is compatible in that AB programs can be converted with a tool. Can attach i/o via AB RIO.		

Listing of very small PLC brands.												
Brand name	Saia	Festo	Jetter	OPTO-22	Honeywell	Advantech	Idec (Izumi)	Unitronics	Frenzel + Berg	IBH	Entertron	Contec
Website	http://www.start-controls.com/	http://www.festo.com/INetDomino/			http://hpxweb.honeywell.co		www.idec.com	http://www.unitronics.com/	http://www.frenzel-berg.de/	http://www.ibhsoftec-sps.de/	http://www.entertron.com/	http://www.contec.at/47
Comments:	Some CPUs are software compatible with Siemens S7, but it looks like they are dropping going in that direction. Latest CPUs are programmed in IEC601131-3 (CoDeSys ?)	Latest CPUs are programmed in IEC601131-3 (CoDeSys ?)		Appearantly no online programming.	PLC products appear orphaned in Honeywells range of services and solutions.			All PLCs are PLC/HMI combinations.	Board-level "kits" as well as packaged "blocks". Three programming styles/product ranges: IEC(CoDeSys), "S5-like" and uC (C/assembler). Uses CanOpen bus.	A bit special. Packages a Beckhoff WindowsCE IPC with their S7 softplc - and presto: An S7 compatible PLC at a rock-bottom price. i/o must be purchased from Beckhoff.	Board level "kits".	Board level CPU. Claims to be the fastest PLC in the world. Uses an FPGA to achieve this. I guess that means no online change. Uses CoDeSys for programming.