

AC & DC Drives Full Line Selector Guide

Variable Speed Control for AC and DC Motors



ENGINEERING **YOUR** SUCCESS.

Product Overview

AC10 - A simple, reliable, and economical solution to every-day motor control applications requiring speed or torque control within the power range of 0.25 to 250 HP. Compact footprint and features including, sensorless vector mode and a full 150%/60 sec overload. A solution for machine builders looking for a compact, cost-effective, drive with robust performance. IP20 and IP66 ratings available.



AC30V, AC30P, AC30D - Available in three levels of capabilities, the AC30 family provides exceptional levels of control, from simple open-loop pumps and fans to closed-loop process line applications through 600 HP. Its flexible, modular construction enables a wide range of communications and I/O modules to be added as required. Integrated macros and PLC functionality enable users to create sophisticated control without a separate PLC.

AC690+ “Integrator Series” - A range of AC drives well suited to integrated multi-drive systems. The 32-bit microprocessor based motor control model provides an exceptional dynamic performance platform to which can be added a host of communications and control options, enabling you to tailor the drives to meet your exact requirements. Available in 380-460V 3-phase to 500 HP and 220V-240V to 75 HP.



AC890 - A compact, modular systems drive engineered to control speed and position of open-loop and closed-loop, single- or multi-motor AC induction or servo motor applications. Compatible with a wide range of feedback options, the AC890 may be used with any AC motor and virtually any speed/position feedback options. Available in 380-460/500V 3-phase 0.75 to 500 HP and 220V-240V 3-phase 0.75 to 10 HP.

DC590+ “Integrator Series” for DC motors, well suited to integrated multi-drive systems. Extensive application software including winder control, together with function block programming and configurable I/O creates a total drive system in a single module. This flexibility in configuration makes the DC590+ an excellent retrofit solution not only for legacy Parker SSD drives, but for competitive brands as well. “DRV” models include fuses and contactor.



Frame Guide

AC10 IP20	230V 1ph	230V 3ph	460V 3ph	AC10 IP66	230V 1ph	230V 3ph	460V 3ph
1	0.25-1 HP	0.25-1 HP	0.25-.75 HP	1	0.5-3 HP	0.5-3 HP	1-5 HP
2	1.5-3 HP	1.5-3 HP	1-3 HP	2			7.5-10 HP
3		5 HP	5-7.5 HP	3			15-20 HP
4		7.5 HP	10-15 HP	4*			30-40 HP
5		10-15 HP	20-30 HP	5*			50-75 HP
6		20 HP	40 HP	6*			100-125 HP
7			50-60 HP	* NOT UL LISTED			
8			75-100 HP				
9			125-150 HP				
10			200 HP				
11			225-250 HP				



AC10 IP20



AC10 IP66 NEMA 4X (Indoor)

AC690+	Normal Duty / VT			Heavy Duty / CT		
	230V 1ph	230V 3ph	460V 3ph	230V 1ph	230V 3ph	460V 3ph
B				1-3 HP	1-5 HP	1-10 HP
C			20-25 HP		7.5-10 HP	15-20 HP
D		20-25 HP	30-50 HP		15-25 HP	25-40 HP
E		40 HP	60-75 HP		30 HP	50-60 HP
F		50-75 HP	100-150 HP		40-50 HP	75-150 HP
G			200-350 HP			175-300 HP
H			400-500 HP			350-450 HP
J			550 HP			500 HP



AC690+

AC30 V, P, D	Normal Duty / VT			Heavy Duty / CT		
	230V 1ph	230V 3ph	460V 3ph	230V 1ph	230V 3ph	460V 3ph
D			1.5-7.5 HP			1-5 HP
E			10-15 HP			7.5-10 HP
F			20-25 HP			15-20 HP
G			30-50 HP			25-40 HP
H			60-100 HP			50-75 HP
J			125-200 HP			100-150 HP
K			250-350 HP			200-300 HP
L			400-450 HP			350-400 HP
M			500-550 HP			450-500 HP
N			600 HP			550 HP



AC30V, P, D

AC890SD	Normal Duty / VT			Heavy Duty / CT		
	230V 1ph	230V 3ph	460V 3ph	230V 1ph	230V 3ph	460V 3ph
B					1-5 HP	1-10 HP
C					7.5-10 HP	15-20 HP
D						25-40 HP
E			60-75 HP			50-60 HP
F			100-150 HP			75-150 HP
G			200-350 HP			175-300 HP
H			400-500 HP			350-450 HP
J			550 HP			500 HP



AC890SD

AC890CD	Normal Duty / VT			Heavy Duty / CT		
	230V 1ph	230V 3ph	460V 3ph	230V 1ph	230V 3ph	460V 3ph
B					0.75-5 HP	1-10 HP
C					7.5-10 HP	15-20 HP
D						25-40 HP
E			60-75 HP			50-60 HP
F			100-150 HP			75-150 HP



AC890CD



DSE supports all Parker systems drives as well as peer-to-peer communications via LINKnet. It also supports peer-to-peer communication via FireWire 1394a on AC890 products.

DSElite, a free download, supports all Parker drives including the AC10 for applications that do not require peer to peer communications.



Drive Series	P/N Details				
DC590+ v2	Non-regenerative P/N prefix	Regenerative P/N prefix	Frame	Armature Output (Amps DC)	Field Output
	591+.../500 460 VAC input	590+.../500 460 VAC input	3	206, 246A	10A
			4	360, 425, 490, 700, 815A	30A
			6	1250, 1600, 1950A	60A
	591+.../690 575-690 VAC input	590+.../690 575-690 VAC input	6	1250, 1600, 1850A	60A
	955+8N... 460 VAC input	955+8R... 460 VAC input	1	15, 35A	4A
			2	55, 70, 90, 110, 125, 165A	10A
3			206, 246A	10A	
4			360, 425, 490, 700, 815A	30A	
6			1250, 1600, 1950A	60A	
955+CN... 575 VAC input	955+CR... 575 VAC input	6	1250, 1600, 1850A	60A	



Power Module Only*






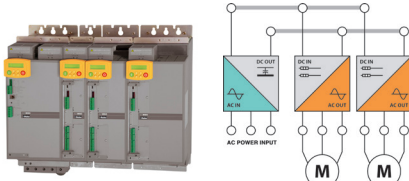


DRV Power Module with Contactor and Fusing





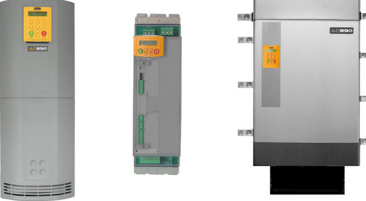
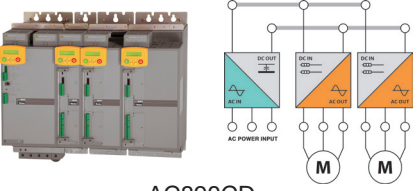
* Also available as a separate stack controller, less power section, for controlling an existing power stack. Please consult Parker for additional application data.

Drive Series	Feed-back		Features			Program- ing soft- ware			Peer to Peer	Third Party Comms/ Fieldbus Connectivity						
	Encoder	DC Tach	Field Controller	Semiconductor Fusing	Dynamic Braking	Appl Function Blocks	DSElite	IEC 61131	DSE	LINKnet Cat6	RS422/485	EtherNet/IP	Modbus TCP	PROFIBUS	DeviceNet	CANopen
DC590+ v2 ● = Standard Feature ○ = Optional																
Power Module Only*	○	○	●	● Frame 6		Advanced	●		●	○	●	○	○	○	○	○
DRV Power Module with Contactor and Fusing	○	○	●	●	○	Advanced	●		●	○	●	○	○	○	○	○



Drive Series	Output Ratings		Input	Motor Control Mode					Enclosure Type				Safety		Braking		Inductance		
	ND (VT) HP	HD (CT) HP	Supply Voltage	Volts/Hz	Sensorless Vector	Closed Loop Vector	Sensorless PMAC	Closed Loop PMAC	Line Regen Active Front End	IP00	IP20	NEMA 1	IP66 / NEMA 4X Indoor	Safe Torque Off	Application Function Blocks	Brake Switch	Brake Resistor	Built-in Line Reactor	Built-in DC Choke
 AC10 IP20		0.25 - 3	230V 1ph																
		0.25 - 20	230V 3ph	●	●						●				● Basic	●	○		
		0.25 - 250	460V 3ph																
 AC10 IP66 NEMA 4X (Indoor)		0.5 - 3	230V 1ph																
		0.5 - 3	230V 3ph	●	●								●		● Basic	●	○		
		1 - 125*	460V 3ph																
 AC690+		1 - 3	230V 1ph																
	20 - 75	1 - 60	230V 3ph	●	●	○			●	Frame G, H, J	●	Frames B - F			● Advanced	● Frames B & C ○ All others	○	● Frames E & F	● Frame C & D
	30 - 550	1 - 500	460V 3ph																
 AC30V, P, D	1.5 - 600	1 - 550	460V 3ph	●	●	● Type P ○ Types V & D	●	○	○				●		● Advanced	○	○		● 5 HP and larger
 AC890SD	1 - 10		230V 3ph							●	Frame G, H, J	●	Frames B - F		● Advanced	● Frames B - F ○ All others	○	● Frames E & F	
	1 - 550	1 - 500	460V 3ph	●	●	○		○	○				●	Frames B - F		● Advanced		○	
 AC890CD (DC fed, common DC bus)		0.75 - 10	320 VDC																
		1 - 40	650 VDC	●	●	○		○	○					●		● Advanced			
	60 - 150	50 - 150	650 VDC																

● = Standard Feature
○ = Optional

Drive Series	Programming Software			Peer-to-Peer Comms			Third Party Comms / Fieldbus Connectivity									
	DSElite	IEC 61131	DSE	IEEE 1588 Time Sync.	LINKnet CAT6	FireWire 1394a	RS422/485	EtherNet/IP	Modbus TCP	PROFINET	PROFIBUS	ControlNet	DeviceNet	CANopen	EtherCAT	
 <p>AC10 IP20</p>	●						●									
 <p>AC10 IP66 NEMA 4X (Indoor)</p>	●						●									
 <p>AC690+</p>	●		●		○		○	○	○		○		○	○		
 <p>AC30V, P, D</p>	●	●	●	● Types P & D	○ If flashed to DSE		○ Only if flashed for CoDeSys, not DSE/DSElite	●	● Types P & D	● Types P & D ○ Type V	○			○	○	
 <p>AC890SD</p>	●		●		○	○	○	○	○	○	○	○	○	○	○	○
 <p>AC890CD (DC fed, common DC bus)</p>	●		●		○	○	○	○	○	○	○	○	○	○	○	○

These choices available only if flashed for CoDeSys, not DSE/DSElite.

AC & DC Drives for all your requirements...from fans and pumps to the most demanding industrial applications.



Converting



Metals



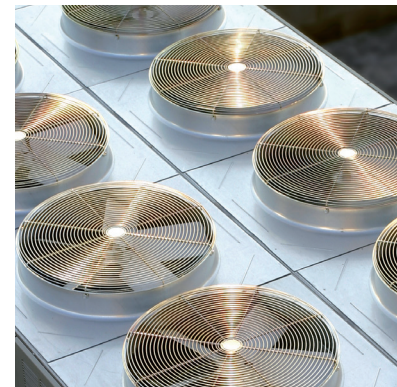
Plastics



Centrifugal Pumps



Wire & Cable



Fans



Test Stands & Dynos



Cranes & Hoists



Hydraulic Power Units

©2020 Parker Hannifin Corporation. All rights reserved.



Parker Hannifin Corporation
Electromechanical & Drives Div.
5500 Business Park Dr.
Rohnert Park, CA 94928 USA
Tel: (800) 358-9070
emn_support@parker.com
www.parker.com/emdusa

Drives - Full Line Selector
Issue 5 July2020