



For industrial applications such as centrifugal fans and pumps, the P7 drive is an ideal choice. The drive is provided in Normal Duty ratings with 110% overload capability. V/f control mode, network communication options, and an array of input/output options are available.

This drive is designed for tough industrial environments. It is rugged and reliable, with an MTBF of 28 years. A variety of enclosure options provide the right environmental protection. Providing the right power requirements is also easy with 208/240 and 480 volt ratings, built-in bus choke above 30 HP, common bus capability, and other energy savings options.

The P7 supports communications choices such as DeviceNet, Profibus-DP and others. Drive coordination with other equipment is simplified with inputs and outputs for 4 to 20 mA, 0-10V and an assortment of programmable contacts.

With an optional phase-shifting input transformer, the P7 dual-diode bridge can be operated in 12-pulse rectification mode, reducing input current harmonic distortion factor by over 90%. With lower EMI/RFI emission and lower total harmonic distortion contribution, the P7 meets or exceeds the generally accepted power quality standards.

The P7 has been designed to provide the features and options commonly needed for fan and pump applications.

Performance Features

- Ratings: 5-150 HP, 208 VAC
5-150 HP, 230 / 240 VAC
5-500 HP, 480 VAC
- Overload capacity: nominal 110% for 60 sec. (150% peak)
- Starting torque: 100% at 3 Hz
- DC injection braking: at start or stop, adjustable, current-limited (anti-windmilling)
- Motor preheat function
- Adjustable accel/decel: 0.1 to 6000 sec.
- Controlled speed range: 40:1
- Critical frequency rejection: 3 selectable, adjustable bands
- Torque-limiting: 30-180%
- Energy Saving control
- Torque boost: full range, auto
- Power loss ride-thru: 2 sec.
- Inertia ride-thru
- Auto restart after power loss or resettable fault, selectable, programmable
- Feedback signal loss detection
- Serial communications loss detection
- "Up/Down" floating point control capability
- Stationary motor auto-tuning
- Sleep function
- Run-permissive input

Protective Features

- Current-limited stall prevention
- Heat sink over-temperature, speed fold-back
- Bi-directional start into rotating motor
- Current-limiting DC bus fuse
- Optically-isolated controls
- Short circuit protection: Phase-phase and phase-neutral
- Ground fault protection
- Short circuit withstand rating: 100K RMS
- Electronic motor overload: UL
- Current limit
- Fault display: last 10 faults
- Fault circuit: OC, OV, OT
- Over torque and under torque protection
- Reverse prohibit selectability

Service Conditions

- Ambient Temperature: -10°C to 40°C
NEMA 1, 45°C protected chassis
(14° F to 104° F, 113° F)
- Humidity: 95% RH, non-condensing
- Altitude: 3300 ft; higher by derate
- Input voltage: +10%/-15%
- Input frequency: 50/60 Hz ± 5%
- 3-phase, 3-wire, phase sequence insensitive

Design Features

- LCD keypad display, 5 lines x 16 characters, backlit, 6 languages, copy function
- Multi-step speed settings: 5 available
- Setpoint (PI) control
- 32-bit microprocessor logic
- Non-volatile memory, program retention
- Displacement power factor: 0.98
- Output frequency: 0.1 to 120 Hz
- Frequency resolution: 0.06 Hz
- Frequency regulation: 0.1%
- Control Terminal Board: Quick disconnect
- Carrier frequency: selectable to 15 kHz
- 3% DC bus reactor: 30-150 HP, 208 VAC; 30-150 HP, 240 VAC; 40-500 HP, 480 VAC; optional on lower ratings
- 24 VDC control logic, PNP / NPN selectable
- Transmitter/Option power supply
- Input/output terminal status
- Timer function: Elapsed time, Delay on start, Delay on stop
- RS-422/485 port: Modbus protocol
- Volts/hertz ratio: Preset and programmable V/Hz patterns
- Meter Functions: Volt, amp, kilowatt, elapsed run time, speed command
- NEMA 1 or protected chassis
- UL, cUL listed and CE marked; IEC 146;
- MTBF: exceeds 28 years
- DriveWizard™ upload/download and monitoring/graphing software

Inputs and Outputs

- Output contacts: One form C and two programmable form A
- Input terminals: 5 programmable multifunction input terminals
- Fault input: Programmable
- Remote speed command: 0-10 VDC or 4-20mA, direct or reverse-acting
- Analog outputs: Programmable, two, 0-10 VDC

Options

- Remote digital operator kit
- Input and/or output reactor
- Twelve-pulse rectification with input transformer: 30 -150 HP at 240 VAC, 40-500 HP at 480 VAC
- Communication Interface: DeviceNet, Profibus, LonWorks, Ethernet, and Modbus Plus
- RFI/EMI filter / EMC
- Pressure transducer, 3-15 PSI
- Analog outputs: programmable, two, 4-20 mA

P7**Standard Drives**

P7 Drives - 5-500HP, 208-230/240 and 480V, 3-phase⁽¹⁾ input, NEMA 1 or protected chassis enclosure

Rated Input Voltage	Drive Model Number CIMR-P7U	Rated Output Current (Amps)	Nominal HP ⁽²⁾	Standard Enclosure	Drive List Price \$
208V	23P71	16.8	5	NEMA 1	
	25P51	23	5 ⁽³⁾		
	27P51	31	7.5	NEMA 1	
		31	10		
	20111	46.2	15	NEMA 1	
	20151	59.4	20	NEMA 1	
	20181	74.8	25		
	20221	88	30	NEMA 1	
	20301	115	40		
	20370	162	50	Protected Chassis	
20450	192	60			
20550	215	75	Protected Chassis		
20750	312	100			
20900	360	125	Protected Chassis		
21100	415	150			
240V	23P71	16.8	5	NEMA 1	
	25P51	23	7.5		
	27P51	31	10	NEMA 1	
		31	15		
	20111	46.2	15	NEMA 1	
	20151	59.4	20		
20181	74.8	25	NEMA 1		
20221	88	30			
20301	115	40			
230V	20370	162	50	Protected Chassis	
		162	60		
	20450	192	75	Protected Chassis	
	20550	215	75 ⁽³⁾		
	20750	312	100	Protected Chassis	
		312	125		
20900	360	150	Protected Chassis		
21100	415	150 ⁽³⁾			

(1) For single-phase input applications, consult Yaskawa Drives Applications Engineering for proper sizing

(2) Horsepower rating is based on standard NEMA B 4-pole motor design as represented in NEC table 430.150 Full-Load Current, Three-Phase Alternating Current Motors

(3) Check motor FLA for proper drive sizing

P7 Drives (Continued)

Rated Input Voltage	Drive Model Number CIMR-P7U	Rated Output Current (Amps)	Nominal HP ⁽²⁾	Standard Enclosure	Drive List Price \$
480V	43P71	7.6	5	NEMA 1	
	44P01	8.7	5 ⁽³⁾	NEMA 1	
	45P51	12.5	7.5	NEMA 1	
	47P51	17	10	NEMA 1	
	49P01	21	15	NEMA 1	
	40111	27	20	NEMA 1	
	40151	34	25	NEMA 1	
	40181	40	30	NEMA 1	
	40221	50.4	30 ⁽³⁾	NEMA 1	
	40241	52	40	NEMA 1	
	40301	67.2	50	NEMA 1	
	40371	77	60	NEMA 1	
	40451	96	75	NEMA 1	
	40551	125	100	NEMA 1	
	40750	156	125	Protected Chassis	
	40900	180	150	Protected Chassis	
	41100	240	200	Protected Chassis	
	41320	260	200 ⁽³⁾	Protected Chassis	
41600	304	250	Protected Chassis		
41850	414	300 350	Protected Chassis		
42200	515	400 450	Protected Chassis		
43000	675	500	Protected Chassis		

- (1) For single-phase input applications, consult Yaskawa Drives Applications Engineering for proper sizing
- (2) Horsepower rating is based on standard NEMA B 4-pole motor design as represented in NEC table 430.150 Full-Load Current, Three-Phase Alternating Current Motors
- (3) Check motor FLA for proper drive sizing

P7**Ring Kit Options**

Ring Kit - These kits allow installation of the drive into a customer's enclosure with the heatsink mounted out the back to reduce overall enclosure size. Each kit includes all of the necessary components, including hardware and instructions.

Rated Input Voltage	Drive Model Number CIMR-P7U	Kit Model No. UDA00417-	Kit List Price \$
208-230/240V	20P41 thru 25P51	D	
	27P51	C	
	20111		
	20151	B	
	20181		
	20221	F	
	20301	E	
	20370 thru 21100	Not Available	
480V	40P41 thru 45P51	D	
	47P51 thru 40111	C	
	40151	B	
	40181		
	40221 thru 40301	E	
	40371 thru 40551	A	
	40750 thru 43000	Not Available	

Enclosure Options

End Cap Kit
Leg Kit



End Cap Kit, NEMA 1 - This option consists of a top and bottom cover to convert a protected chassis drive to a NEMA 1 enclosed unit. This option DOES NOT provide additional space for mounting auxilliary components (i.e. circuit breaker, input fuses, reactor, etc.).

Rated Input Voltage	Drive Model Number CIMR-P7U	Kit Model No. UDA00365-	Overall Drive Dimensions			Kit List Price \$
			Height (in.)	Width (in.)	Depth (in.)	
208-230/240V	20P41 thru 20301		Not Required			
	20370	C	32.24	15.55	No Change	
	20450					
	20550	E	40.83	18.43	No Change	
	20750					
	20900	F	49.33	20.43	No Change	
	21100		Not Available			
480V	40P41 thru 40551		Not Required			
	40750	E	40.83	18.43	No Change	
	40900					
	41100	F	49.33	20.43	No Change	
	41320					
	41600	P	52.52	23.39	No Change	
		41850		Not Available		
	42200					
	43000					

Freestanding Leg Kit, NEMA 3R - This option allows the NEMA 3R wall-mount enclosures to be mounted on legs so that the control can be freestanding and off the ground. Either kit can be used on any of the wall-mount enclosures. (All floor-mount enclosures come standard with freestanding legs.)

12" Leg Kit

Model No. UDA00548-1 List \$

30" Leg Kit

Model No. UDA00548-2 List \$

Reactor, 3% and 5% Impedance - May be used on either the input or output of a drive to reduce the effect of load or line side transients on the drive. The three-phase reactors are provided in a separate NEMA 1 enclosure.

Rated Input Voltage	Drive Model Number CIMR-P7U	Rated Output Current (Amps)	Nominal HP ⁽¹⁾	3% Enclosed Reactor					5% Enclosed Reactor				
				Part Number 05P00620-	List Price \$	Dimensions (in.)			Part Number 05P00620-	List Price \$	Dimensions (in.)		
						H	L	W			H	L	W
208V	23P71	16.8	5	0041		13.0	13.0	13.0	0036		8.0	8.0	6.0
	27P51	31	7.5 10	0041		13.0	13.0	13.0	0047		13.0	13.0	13.0
				0046					0051				
	20111	46.2	15	0054		13.0	13.0	13.0	0055		13.0	13.0	13.0
				20151	59.4				20	0058			
	20181	74.8	25	TBD		13.0	13.0	13.0	0058		13.0	13.0	13.0
					20221				88	30			
	20301	115	40	0066		13.0	13.0	13.0	0067		13.0	13.0	13.0
				20370	162				50	0072			
	20450	192	60	0077		13.0	13.0	13.0	0078		13.0	13.0	13.0
20550				215	75				0082				
20750	312	100	0087		24.0	17.0	17.0	0088		24.0	17.0	17.0	
20900	360	125	TBD		TBD			0092		24.0	17.0	17.0	
				21100	415	150	0096						
240V	23P71	16.8	5	0036		8.0	8.0	6.0	0037		8.0	8.0	6.0
	25P51	23	7.5	0041		13.0	13.0	13.0	0042		13.0	13.0	13.0
	27P51	31	10	0046					0047				
	20111	46.2	15	0050		13.0	13.0	13.0	0055		13.0	13.0	13.0
				20151	59.4				20	0054			
	20181	74.8	25	0058		13.0	13.0	13.0	0059		13.0	13.0	13.0
				20221	88				30	TBD			
20301	115	40	0066		13.0	13.0	13.0	0067		13.0	13.0	13.0	
230V	20370	162	50	0066		13.0	13.0	13.0	0067		13.0	13.0	13.0
			60	0072					0073				
	20450	192	75	0077		13.0	13.0	13.0	0078		13.0	13.0	13.0
	20750	312	100	0082		13.0	13.0	13.0	0083		24.0	17.0	17.0
125			0087		24.0				17.0	17.0			
20900	360	150	TBD		TBD			0092		24.0	17.0	17.0	

(1) Horsepower rating is based on standard NEMA B 4-pole motor design as represented in NEC table 430.150 Full-Load Current, Three-Phase Alternating Current Motors

Reactor, 3% and 5% Impedance (continued for 480V)

Rated Input Voltage	Drive Model Number CIMR-P7U	Rated Output Current (Amps)	Nominal HP ⁽¹⁾	3% Enclosed Reactor					5% Enclosed Reactor				
				Part Number 05P00620-	List Price \$	Dimensions (in.)			Part Number 05P00620-	List Price \$	Dimensions (in.)		
						H	L	W			H	L	W
480V	43P71	7.6	5	0033		8.0	8.0	6.0	0029		8.0	8.0	6.0
	45P51	12.5	7.5	0037		8.0	8.0	6.0	0034		8.0	8.0	6.0
	47P51	17	10	0037					0038		13.0	13.0	13.0
	49P01	21	15	0042		13.0	13.0	13.0	0043		13.0	13.0	13.0
	40111	27	20	0047					0048				
	40151	34	25	0047		13.0	13.0	13.0	0048		13.0	13.0	13.0
	40181	40	30	0051					0052				
	40241	52	40	0055		13.0	13.0	13.0	0056		13.0	13.0	13.0
	40301	67.2	50	0059					0060				
	40371	77	60	0062		13.0	13.0	13.0	0063		13.0	13.0	13.0
	40451	96	75										
	40551	125	100	0067		13.0	13.0	13.0	0068		13.0	13.0	13.0
	40750	156	125	0073					0074				
	40900	180	150	0078		13.0	13.0	13.0	0079		13.0	13.0	13.0
	41100	240	200	0083		24.0	17.0	17.0	0084		24.0	17.0	17.0
	41600	304	250	0088		24.0	17.0	17.0	0089		24.0	17.0	17.0
41850	414	300 & 350	0092					0093					
42200	515	400 & 450	0100		24.0	17.0	17.0	0101		24.0	17.0	17.0	
43000	675	500	0104		30.0	24.0	24.0	0105		30.0	24.0	24.0	

(1) Horsepower rating is based on standard NEMA B 4-pole motor design as represented in NEC table 430.150 Full-Load Current, Three-Phase Alternating Current Motors



Control Options

Control Options - These cards, cables and devices add control functionality to the standard drive. Items are shipped loose, unmounted. See Configured Section for factory mounted and wired control.

Analog Input Options

Trim Potentiometer. This option provides a 5kOhm potentiometer for use as a dropping resistor for maximum or minimum analog input trim.

Mounts to control terminal strip

Model No. AI-001List \$

3-15PSI Transducer. This option provides for the interface of a 3 to 15PSI pneumatic signal, and provides a 4 to 20mA output signal proportional to the input signal to the drive.

Mounts to control terminal strip

Model No. AI-010List \$

Analog Output Options

Analog Output Monitor, 4-20mA. The standard drive provides two programmable 0-10VDC outputs. This option will convert either, or both, of these outputs to 4-20mA output signals. It can be used for remote metering of any of the "U1" parameters, including: output frequency, output current, DC bus voltage, etc.

This option replaces and mounts in the same location as the drive's standard terminal PCB.

Model No. ETC618121List \$

Digital Input Options

120VAC Logic Interface (7-Input). This option provides for the interface of 120VAC control logic circuits to the drive. This option is used for digital inputs S1 to S7.

Mounts to control strip

Model No. DI-002..... List \$

Digital Operator Options

Digital Operator (LCD). This option is the standard digital operator found on the drive. This option is only needed if the original keypad is lost or damaged.

Features include:

LCD keypad display, 5 lines x 16 characters, backlit

7 languages

Copy function

Mounts to keypad port

Model No. 300-016-999 List \$

Digital Operator (LCD) Outdoor Viewing. This option is the standard digital operator supplied on all NEMA 3R packaged drives. This keypad is only needed if the original keypad is lost or damaged.

Features include:

LCD keypad display

Copy function

Mounts to keypad port.

Model No. UOP000013..... List \$

UL Rated Remote Operator Kits. This option is used to extend the existing Digital Operator to the wall of a separately priced, oversized UL Type 1, 3R,4, 4X, or 12 enclosure (IPX6 environment). Price includes a faceplate bezel with digital operator carrier and membrane to cover the operator cutout in the enclosure door, a 3-foot cable, a 10-foot cable, and a 1:1 template for cutting the necessary cutouts in the enclosure. Keypad can be removed after kit installation. When using this option for NEMA 3R (outdoor) applications, use digital operator UOP000013 (purchased separately).

Mounts to keypad port and enclosure wall.

Model No. UUX000458 (Blank Membrane)..... List \$

Model No. UUX000459 (Yaskawa Logo Membrane) List \$

Remote Operator Kit. This option is used to extend the existing Digital Operator to the wall of a separately priced, oversized NEMA 1 enclosure (No UL rating). Price includes a faceplate membrane to cover the operator cutout in the enclosure door, a 3-foot cable, a 10-foot cable, a remote digital operator carrier, and a 1:1 template for cutting the necessary cutouts in the enclosure.

Note: Keypad cannot be removed after initial installation.

Mounts to keypad port and enclosure wall.

Model No. UUX000444 (Yaskawa Logo Membrane) List \$



Communications Options - These communications options are provided loose, unmounted. Network communications are available for most popular protocols.

DeviceNet. This option complies with the ODVA (Open DeviceNet Vendor Association) specification and AC drive profile. All parameter, diagnostics and operational commands are accessible via DeviceNet. The option board provides a DeviceNet standard open tap connector. Each DeviceNet network supports up to 63 drives. Controllers are available from many PLC and/or PC suppliers. Electronic Data Sheets may be downloaded from www.yaskawa.com to assist with network configuration and drive setup.

Mounts at option connector 2CN. Covers 3CN.

Model No. CM058List \$

Profibus DP. This option complies with the Profibus DP protocol specification. All parameters, diagnostics and operational commands are accessible via Profibus. The option board provides convenient Phoenix-type terminations for landing the shielded, twisted-pair wiring. Each Profibus network supports up to 99 drives. This option supports all of the Profibus data rates from 9.6 Kbps to 12 Mbps. Up to 32 bytes of input data and 32 bytes of output data are provided per message transaction. GSD files may be downloaded from www.yaskawa.com to assist with network configuration and drive setup.

Mounts at option connector 2CN.

Model No. CM061List \$

LonWorks. This option is compatible with the Lon Mark Interoperability Association and complies with the Functional Profile for a Variable Frequency Motor Drive. The option board features the FFT-10A Free Topology Twisted-Pair Transceiver. Network connectivity is facilitated by either a Phoenix-style screw termination or RJ-45 connector. The kit includes a 12-inch pigtail (UWR00567-1) for interface wiring of the phoenix terminal block. Optional longer pigtail assemblies are available for use when drive is mounted within another enclosure. The 20-inch cable is for wall mount enclosures. The 78-inch cable may be used with any enclosure and may be cut to any length required.

Mounts at option connector 2CN. Covers 3CN. Blocks 4CN.

Model No. CM048List \$

Model No. UWR00567-2 (20-inch cable)List \$

Model No. UWR00567-3 (78-inch cable)List \$

Modbus Plus. This option complies with Modicon's ModConnect Partners program and provides a seamless interface to Quantum, 984 and Compact PLCs. All parameters, diagnostics and operational commands are accessible via Modbus Plus. The option board provides a 9-pin D-shell connector for easy wiring and communicates via a 1 Mbps, twisted-pair, Local Area Network. Each Modbus Plus network supports up to 63 drives.

Mounts at option connector 2CN. Covers 3CN.

Model No. CM071List \$

Modbus TCP/IP. This option complies with the Modbus TCP/IP protocol specification. This allows for communication over 10/100 Mbps Ethernet networks. This option has the ability to configure the IP Address from a user specified IP address, from a DHCP host or from a BootP host. All parameters, diagnostics and operational commands are accessible via Modbus TCP/IP. Auto-tuning the motor is also possible through this option using the DriveWizard PC program. This option supports up to 10 simultaneous PLC/PC connections.

Mounts at option connector 2CN.

Model No. CM090List \$

EtherNet/IP. This option complies with the EtherNet/IP protocol specification. This allows for communication over 10/100 Mbps Ethernet networks. This option has the ability to configure the IP Address from a user specified IP address, from a DHCP host or from a BootP host. All parameters, diagnostics and operational commands are accessible via EtherNet/IP. Auto-tuning the motor is also possible through this option using the DriveWizard PC program.

Mounts at option connector 2CN.

Model No. CM092List \$

BACnet. This option complies with the BACnet protocol specification. This allows for communication over MS-TP (RS-485) BACnet networks. All parameters, diagnostics and operational commands are accessible via BACnet. BACnet is supported and maintained by ASHRAE Standing Standard Project Committee. The kit includes a 12-inch pigtail (UWR00567-1) for interface wiring of the drive Modbus terminals. Optional longer pigtail assemblies are available for use when drive is mounted within another enclosure. The 20-inch cable is for wall mount enclosures. The 78-inch cable may be used with any enclosure and may be cut to any length required.

Mounts at option connector 2CN.

Model No. CM049List \$

Model No. UWR00567-2 (20-inch cable)List \$

Model No. UWR00567-3 (78-inch cable)List \$

Dimensions and Data

Rated Input Voltage	Drive Model Number CIMR-PTU	Rated Output Current (Amps)	Nominal HP ⁽¹⁾	Physical Dimensions (in.)			Weight (lbs.) ⁽²⁾	Standard Enclosure	Dimension Drawing Number ⁽³⁾	Heat Loss (watts) ⁽⁴⁾		
				H	W	D				Heatsink	Internal	Total
208V	23P71	16.8	5	11.02	5.51	7.09	8.8	NEMA 1	DD.P7.FR2.N1.01	110	74	184
	27P51	31.0	7.5 & 10	11.81	7.87	7.87	13.2		DD.P7.FR3A.N1.01	219	113	332
	20111	46.2	15	12.20	7.87	7.87	15.4		DD.P7.FR3B.N1.01	357	168	525
	20151	59.4	20	13.78	9.45	8.27	24.2	Protected Chassis	DD.P7.FR4A.N1.01	416	182	598
	20181	74.8	25	14.96					DD.P7.FR4C.N1.01	472	208	680
	20221	88	30	21.06	10.00	10.24	53		DD.P7.FR5.N1.01	583	252	835
	20301	115	40	24.21	10.98		59		DD.P7.FR6A.N1.01	883	333	1216
	20370	162	50	23.62	14.76	11.81	125		DD.P7.FR7.IP00.01	1010	421	1431
	20450	192	60			12.99	139		DD.P7.FR8.IP00.01	1228	499	1727
	20550	215	75	28.54	17.72	13.78	189		DD.P7.FR10.IP00.01	1588	619	2207
20750	312	100				191		1956	844	2800		
20900	360	125	33.46	19.69	14.17	238	DD.P7.FR11.IP00.01	2194	964	3158		
21100	415	150	34.84	22.64	14.96	330	DD.P7.FR12.IP00.01	2733	1234	3967		
240V	23P71	16.8	5	11.02	5.51	7.09	8.8	NEMA 1	DD.P7.FR2.N1.01	110	74	184
	25P51	23.0	7.5							164	84	248
	27P51	31.0	10	11.81	7.87	7.87	13.2		DD.P7.FR3A.N1.01	219	113	332
	20111	46.2	15	12.20			15.4	DD.P7.FR3B.N1.01	357	168	525	
	20151	59.4	20	13.78	9.45	8.27	24.2	DD.P7.FR4A.N1.01	416	182	598	
	20181	74.8	25	14.96				DD.P7.FR4C.N1.01	472	208	680	
230V	20221	88	30	21.06	10.00	10.24	53	NEMA 1	DD.P7.FR5.N1.01	583	252	835
	20301	115	40	24.21	10.98		59		DD.P7.FR6A.N1.01	883	333	1216
	20370	162	50 & 60	23.62	14.76	11.81	125	Protected Chassis	DD.P7.FR7.IP00.01	1010	421	1431
	20450	192	75			12.99	139		DD.P7.FR8.IP00.01	1228	499	1727
20750	312	100 & 125	28.54	17.72	13.78	191	DD.P7.FR10.IP00.01		1956	844	2800	
20900	360	150	33.46	19.69	14.17	238	DD.P7.FR11.IP00.01		2194	964	3158	
480V	43P71	7.6	5	11.02	5.51	7.09	8.8	NEMA 1	DD.P7.FR2.N1.01	80	68	148
	45P51	12.5	7.5							127	81	208
	47P51	17.0	10							193	114	307
	49P01	21.0	15	11.81	7.87	7.87	13.2		DD.P7.FR3A.N1.01	210	140	350
	40111	27.0	20							232	158	390
	40151	34.0	25	13.78	9.45	8.27	22	DD.P7.FR4B.N1.01	296	169	465	
	40181	40.0	30					DD.P7.FR4A.N1.01	389	201	590	
	40221	50.4	30					NEMA 1	DD.P7.FR6B.N1.01	420	233	653
	40241	52	40	21.06	10.98	10.24	53			510	260	770
	40301	67.2	50							691	298	989
	40371	77	60	25.00					DD.P7.FR9A.N1.01	801	332	1133
	40451	96	75	28.15	12.95	11.22	88		DD.P7.FR9B.N1.01	901	386	1287
	40551	125	100	28.15					1204	478	1682	
	40750	156	125					Protected Chassis	DD.P7.FR10.IP00.01	1285	562	1847
	40900	180	150	28.54	17.72	13.78	196			1614	673	2287
41100	240	200	33.46	19.69	14.17	224	DD.P7.FR11.IP00.01		1889	847	2736	
41320	260	200				264			2388	1005	3393	
41600	304	250	36.06	22.64	14.96	352	DD.P7.FR13.IP00.01		2791	1144	3935	
41850	414	300 & 350					Protected Chassis	DD.P7.FR14.IP00.01	2636	1328	3964	
42200	515	400 & 450	51.38	27.95	16.34	616			3797	1712	5509	
43000	675	500	58.07	36.06	16.34	891		DD.P7.FR15.IP00.01	5838	2482	8320	

- (1) Horsepower rating is based on standard NEMA B 4-pole motor design as represented in NEC table 430.150 Full-Load Current, Three-Phase Alternating Current Motors
- (2) This data represents the drive weight only, not shipping weight.
- (3) Please refer to Yaskawa's website at www.yaskawa.com for dimension drawings.
- (4) Total Heat Loss is the amount of heat dissipated by the drive at full load. This data is separated into "Heatsink" and "Internal" values. The value in the "Heatsink" column is the amount of heat dissipated by the heatsink, and would not need to be considered when calculating the enclosure size for applications that may require mounting the heatsink out the back of the enclosure using the Ring Kit option.