

# FP605

## IP20/UL TYPE 1 AC DRIVES FOR INDUSTRIAL FAN & PUMP APPLICATIONS

Building on decades of industrial application experience, Yaskawa's FP605 drive provides easy-to-use, flexible, and sustainable motor control for variable torque loads.

The FP605 is the most advanced general purpose fan and pump drive in the market, taking integration and startup to the next level using its high contrast keypad for simple, efficient setup. The FP605 improves efficiency, saves energy, and reduces startup time and maintenance, making it the right choice for industrial motor control.



### RATINGS

240 V Models					480 V Models				
Power Output (HP)	Output Amps	Frame	Catalog Code FP65U□□□□□□□□		Power Output (HP)	Output Amps	Frame	Catalog Code FP65U□□□□□□□□	
			IP20/UL Type 1	IP20/Protected Chassis				IP20/UL Type 1	IP20/Protected Chassis
3	10.6	1	2011AFA		3	4.8	1	4005AFA	
5	16.7	1	2017AFA		5	7.6	1	4008AFA	
7.5	24.2	2	2024AFA		7.5	11	1	4011AFA	
10	30.8	2	2031AFA		10	14	1	4014AFA	
15	46.2	3	2046AFA		15	21	2	4021AFA	
20	59.4	3	2059AFA		20	27	2	4027AFA	
25	74.8	4	2075AFA		25	34	2	4034AFA	
30	88	4	2088AFA		30	40	3	4040AFA	
40	114	4	2114AFA		40	52	3	4052AFA	
50	143	6	2143AFA		50	65	3	4065AFA	
60	169	6	2169AFA		60	77	4	4077AFA	
75	211	9		2211ABA	75	96	4	4096AFA	
100	273	9		2273ABA	100	124	4	4124AFA	
125	343	10		2343ABA	125	156	6	4156AFA	
150	396	10		2396ABA	150	180	9		4180ABA
					200	240	9		4240ABA
					250	302	9		4302ABA
					300	361	10		4361ABA
					350	414	10		4414ABA
					400	477	11		4477ABA
					450	515	11		4515ABA
					500	590	11		4590ABA
					600	720	11		4720ABA

### APPROXIMATE DIMENSIONS

IP20/UL Type 1			
Frame Size	Height	Width	Depth
1	14.06 (357)	4.88 (124)	8.58 (218)
2	17.60 (447)	4.88 (124)	9.17 (233)
3	20.08 (510)	7.87 (200)	9.33 (237)
4	21.32 (541.5)	10.04 (255)	10.35 (263)
6	30.47 (774)	12.28 (312)	15.75 (400)

IP20/Protected Chassis			
Frame Size	Height	Width	Depth
9	27.56 (700)	12.28 (312)	16.54 (420)
10	31.50 (800)	17.32 (440)	18.58 (472)
11	44.70 (1135.5)	20.08 (510)	18.90 (480)

Dimensions shown in inches (mm).

For other enclosure types and enclosure adapters, please visit [yaskawa.com](http://yaskawa.com)

# FP605 SPECIFICATIONS

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Item	Specification
Input Voltage	Three-phase 200 to 240 VAC, 380 to 480 VAC, +10%/-15%, 50/60 Hz +/-5%
Ambient Operating Temperature	-10 to +50°C (IP20/Protected Chassis) -10 to +40°C (IP20/Type 1) Up to +60°C (with derate)
Ambient Storage	-20°C to +70°C (-4°F to 158°F)
Overload Capacity	110% for 60 sec., 140% for 2 sec., 175% instantaneous
Output Frequency	0 to 400 Hz
Control Methods	Open Loop V/f Open Loop Vector (PM motors only) EZ Open Loop Vector
Motor Types	Induction Permanent Magnet Synchronous Reluctance
Environmental	1,000 meters altitude, up to 4,000 meters with derating Class 3C2 and 3S2 operation for IP20/Type 1 & IP20/Protected Chassis 95% humidity, non-condensing IP20/UL Type 1 plenum rated
Harmonics	5% split choke built in both positive and negative DC bus leg as standard (3% DC link on positive BUS for IP20/Protective Chassis designs)
Protective Design Types	IP20/Type 1 IP20/Protected Chassis
Global Certifications	UL, cUL, CE, RoHS 2, WEEE, TUV SUD
Functional Safety	Safe Torque Off, SIL3 according to IEC 62061, PLe according to ISO 13849-1
Interface	LCD keypad and Status Ring, Bluetooth® is optional
Standard I/O	(8) multi-function digital inputs (24Vdc) (3) multi-function analog inputs (0 +/- 10 VDC, 4-20 mA) (1) multi-function pulse inputs (2) Safe Torque Off inputs (2) fault relay output (form C) (2) multi-function relay outputs (form A) (2) multi-function analog output (0 +/- 10 VDC, 4-20mA)
24 VDC Power	External supply input to maintain communications without main power 150 mA output for customer use
I/O Expansion	(3) Analog Inputs -10 to +10V, 13 bit plus sign, 4 to 20mA (16) Digital Inputs (2) Analog Outputs (-10 to +10V, 11 bit magnitude) (8) Digital Outputs (6 transistor, 2 relay)
Network Communication	Standard: Modbus RTU, RS-485, 115 kbps Optional: EtherNet/IP, DeviceNet, Modbus TCP/IP, PROFINET, PROFIBUS-DP
Software Support Tools	DriveWizard® Industrial DriveWizard® Mobile Programming Simulator Energy Savings Predictor Harmonics Estimator Product Selector

DriveWizard® is a registered trademark of Yaskawa America, Inc.

Bluetooth® is a registered trademark of Bluetooth SIG, Inc. USA.

IT'S PERSONAL

**YASKAWA**

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