

# GA800

## AC Drive for Industrial Applications



The Yaskawa GA800 drive provides the ultimate combination of power, ease of use, flexibility and performance. In addition to its exceptional torque production and precise control, you'll enjoy effortless setup with GA800's high resolution display and connection to your favorite mobile device. Whether you need simple control, advanced network communications or functional safety, look no further than GA800 for all your variable speed needs.

### Ratings

Power Output (HP)		240V Drives				480V Drives			
Normal Duty (ND)	Heavy Duty (HD)	Catalog Code GA80U	Output Amps		Frame	Catalog Code GA80U	Output Amps		Frame
			ND	HD			ND	HD	
1.0	0.75	2004ABM	4.2	3.5	1	4002ABM	2.1	1.8	1
1.5	1	2006ABM	6	5	1				
2	1.5	2008ABM	8	6.9	1	4004ABM	4.1	3.4	1
3	2	2010ABM	9.6	8	1	4005ABM	5.4	4.8	1
4	3	2012ABM	12.2	11	1	4007ABM	7.1	5.5	1.5
5	4	2018ABM	17.5	14	1.5	4009ABM	8.9	7.2	1.5
7.5	5	2021ABM	21	17.5	1.5	4012ABM	11.9	9.2	1.5
10	7.5	2030ABM	30	25	1.5	4018ABM	17.5	14.8	1.5
15	10	2042ABM	42	33	1.5	4023ABM	23.4	18	1.5
20	15	2056ABM	56	47	2	4031ABM	31	24	2
25	20	2070ABM	70	60	3	4038ABM	38	31	2
30	25	2082ABM	82	75	3	4044ABM	44	39	3
40	30	2110ABM	110	88	4	4060ABM	59.6	45	3.5
50	40	2138ABM	138	115	6	4075ABM	74.9	60	4
60	50	2169ABM	169	145	7	4089ABM	89.2	75	6
75	60	2211ABM	211	180	7	4103ABM	103	91	6
100	75	2257ABM	257	215	9	4140ABM	140	112	7
125	100	2313ABM	313	283	9	4168ABM	168	150	7
150	125	2360ABM	360	346	10	4208ABM	208	180	9
150	150	2415ABM	415	415	10				
200	150					4250ABM	250	216	9
250	200					4302ABM	302	260	9
300	250					4371ABM	371	304	10
350	300					4414ABM	414	371	10
400	350					4477ABM	477	414	11
450	400					4568ABM	568	477	11
500	450					4605ABM	<b>605</b>	<b>515</b>	11
600	500					4720ABM	720	605	11

### Approximate Dimensions

Frame	Height	Width	Depth
1	10.2 (260)	5.51 (140)	6.93 (176)
1.5	10.2 (260)	5.51 (140)	8.31 (211)
2	11.8 (300)	7.09 (180)	7.95 (202)
3	13.8 (350)	8.66 (220)	8.94 (227)
3.5	13.8 (350)	8.66 (220)	9.69 (246)
4	15.7 (400)	9.45 (240)	11.0 (280)
6	17.7 (450)	10.0 (255)	11.0 (280)
7	21.4 (543)	10.4 (264)	13.2 (335)
9	27.6 (700)	12.3 (312)	16.5 (420)
10	31.5 (800)	17.3 (440)	18.6 (472)
11	44.72 (1136)	20.1 (510)	18.9 (480)

Dimensions shown in inches (mm).

Information on this page represents IP20 type enclosures. For other enclosure types and enclosure adapters, please visit [yaskawa.com](http://yaskawa.com).

## Specifications

Item	Specification
Overload Capacity	150% for 60 sec. (HD), 110% for 60 sec. (ND)
Output Frequency	0 to 590 Hz
Control Methods	Open and Closed Loop Current Vector Open and Closed Loop V/f
Motor Types	Induction
	Surface Permanent Magnet
	Interior Permanent Magnet
	Synchronous Reluctance
Protective Design Types	IP20 (NEMA 1 kit available)
	Flange (Type 12 backside)
Ambient Operating Temperature	-10 to +50°C (IP20 and flange types)
	-10 to +40°C (with NEMA 1 kit)
	Up to +60°C (with derate)
Global Certifications	UL, CSA, CE, RCM, RoHS
Functional Safety	Safe Torque Off, SIL3 according to IEC 62061, PLe according to ISO 13849-1
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
	(1) fault relay output (form C)
	(3) multi-function relay outputs (form A)
	(2) multi-function analog output (0 +/- 10 VDC, 4-20mA)
	(1) multi-function pulse output
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)
Feedback (optional)	Incremental
	Absolute (Stegmann, Heidenhain, Resolver)
Network Communication	Standard: Modbus RTU, RS-485, 115 kbps
	Optional: EtherNet/IP, DeviceNet, Modbus TCP/IP, PROFINET, PROFIBUS-DP
Speed Control Range	1500:1 Closed Loop Vector (IM and PM Motors)
	200:1 Open Loop Vector (IM Motors)
	100:1 Open Loop Vector (PM Motors)
Speed Control Accuracy	≤ 0.02%: Closed Loop Vector; ≤ 0.2%: Open Loop Vector
Speed Response	≥ 50 Hz: Closed Loop Vector (Induction Motors); ≥ 250 Hz: Closed Loop Vector (PM Motors) ≥ 20 Hz: Open Loop Vector (Induction Motors); ≥ 40 Hz: Open Loop Vector (PM Motors)
Function Block Diagrams	Up to 200 connections, 500us program scan time