

IQS - New generation IQ Single Phase

Performance and Motor data

Issue 3 - October 2005

IQS Range includes all control and indication features of the standard IQ range. Refer to Publications E110E and E120E.

Requirement for options Extra contacts, Negative switching and Auxiliary I/O for bus systems must be referred to Rotork. All other options are available.

IQS voltage range

IQS is available for single phase voltages 230V 50/60Hz and 115V 50/60Hz. +/-10%

IQS torque/speed range

IQS torque/speed range is limited by starting current. IQS35 is not available at 115V

IQS rating

IQS is rated S2 - 25%, 60 starts per hour. If applications require a higher duty cycle, please apply to Rotork.

IQS temperature range.

The standard temperature range is - 20 C to + 70C (- 4 to 158 F).

Special low temperature build is available to - 40 to + 40 C (-40 to 104 F).

Actuator builds below - 40 C are not available.



IQS Performance Data 115 - 230V AC Single Phase

Output rpm	18 21	24 29	36 43	48 57	72 86	96 115	144 173	50Hz 60Hz
IQS12	65 48	60 44	45 33	40 30	30 22	25 18		NM <i>lbft</i>
IQS20	165 122	130 96	130 96	125 92	100 74	80 59	60 44	NM <i>lbft</i>
IQS35*	450 332	400 295	350 258	320 236	230 170	190 140	135 100	NM <i>lbft</i>

*** IQS 35 not available at 115V**

Actuator output speed 144/173 rpm is not recommended for direct mounted gate valve applications

IQS Single Phase 50Hz Supplies - Motor Performance Data

Issue 3 Date 14/010/05

230V - 50Hz

			Rated Torque		Locked Rotor		Rated Torque	Average Load			Efficiency
Size	rpm	Poles	NM	lb.ft	Amps	P.F.	Amps	Amps	KW	P.F	%
IQS12	18	4	65	48	7.5	0.97	3	2.2	0.4	0.8	55
	24	4	60	44	7.5	0.97	3	2.2	0.42	0.8	55
	36	4	45	33	7.5	0.97	3	2.2	0.42	0.8	55
	48	4	40	30	7.5	0.97	3	2.2	0.35	0.8	55
	72	4	30	22	7.5	0.97	3	2.2	0.35	0.8	55
	96	4	25	18	7.5	0.97	3	2.2	0.35	0.8	55
IQS20	18	4	165	122	22	0.95	7.2	5.2	0.72	0.6	50
	24	4	130	96	22	0.95	7.2	5.2	0.72	0.6	50
	36	4	130	96	22	0.95	7.2	5.2	0.72	0.6	50
	48	4	125	92	22	0.95	7.2	5.2	0.72	0.6	50
	72	4	100	74	22	0.95	7.2	5.2	0.72	0.6	50
	96	4	80	59	22	0.95	7.2	5.2	0.72	0.6	50
	144	4	60	44	22	0.95	7.2	5.2	0.72	0.6	50
IQS35	18	4	450	332	34	0.93	9.5	5.3	1.1	0.91	84
	24	4	400	295	34	0.93	9.5	5.3	1.1	0.91	84
	36	2	350	258	64	0.9	15.5	7	1.3	0.81	74
	48	2	320	236	64	0.9	15.5	7	1.3	0.81	74
	72	2	230	170	64	0.9	15.5	7	1.3	0.81	74
	96	2	190	140	64	0.9	15.5	7	1.3	0.81	74
	144	2	135	100	64	0.9	15.5	7	1.3	0.81	74

IQS Single Phase 60Hz Supplies - Motor Performance Data

Issue 3 Date 14/010/05

230V - 60Hz

Size	rpm	Poles	Rated Torque		Locked Rotor		Rated Torque	Average Load			Efficiency
			NM	lb.ft	Amps	P.F.	Amps	Amps	KW	P.F	%
IQS12	21	4	65	48	7.4	0.97	3.4	1.6	0.34	0.92	60
	29	4	60	44	7.4	0.97	3.4	1.6	0.34	0.92	60
	43	4	45	33	7.4	0.97	3.4	1.6	0.34	0.92	60
	57	4	40	30	7.4	0.97	3.4	1.6	0.34	0.92	60
	86	4	30	22	7.4	0.97	3.4	1.6	0.34	0.92	60
	115	4	25	18	7.4	0.97	3.4	1.6	0.34	0.92	60
IQS20	21	4	165	122	22	0.95	7.2	5.2	0.72	0.6	50
	29	4	130	96	22	0.95	7.2	5.2	0.72	0.6	50
	43	4	130	96	22	0.95	7.2	5.2	0.72	0.6	50
	57	4	125	92	22	0.95	7.2	5.2	0.72	0.6	50
	86	4	100	74	22	0.95	7.2	5.2	0.72	0.6	50
	115	4	80	59	22	0.95	7.2	5.2	0.72	0.6	50
IQS35	172	4	60	44	22	0.95	7.2	5.2	0.72	0.6	50
	21	4	450	332	30	0.9	12	7.5	1.2	0.71	60
	29	4	400	295	30	0.9	12	7.5	1.2	0.71	60
	43	2	350	258	56	0.85	19	8	1.5	0.83	85
	57	2	320	236	56	0.85	19	8	1.5	0.83	85
	86	2	230	170	56	0.85	19	8	1.5	0.83	85
	115	2	190	140	56	0.85	19	8	1.5	0.83	85
	172	2	135	100	56	0.85	19	8	1.5	0.83	85

115V - 60Hz

Size	rpm	Poles	Rated Torque		Locked rotor		Rated torque	Average Load			Efficiency
			NM	lb.ft	Amps	P.F.	Amps	Amps	KW	P.F	%
IQS12	21	4	65	48	14	0.98	7	2.5	0.26	0.91	55
	29	4	60	44	14	0.98	7	2.5	0.26	0.91	55
	43	4	45	33	14	0.98	7	2.5	0.26	0.91	55
	57	4	40	30	14	0.98	7	2.5	0.26	0.91	55
	86	4	30	22	14	0.98	7	2.5	0.26	0.91	55
	115	4	25	18	14	0.98	7	2.5	0.26	0.91	55
IQS20	21	4	165	122	41	0.95	14	10	0.72	0.6	50
	29	4	130	96	41	0.95	14	10	0.72	0.6	50
	43	4	130	96	41	0.95	14	10	0.72	0.6	50
	57	4	125	92	41	0.95	14	10	0.72	0.6	50
	86	4	100	74	41	0.95	14	10	0.72	0.6	50
	115	4	80	59	41	0.95	14	10	0.72	0.6	50
	172	4	60	44	41	0.95	14	10	0.72	0.6	50