rotork®

Keeping the World Flowing
for Future Generations

IQ Range IQ3



Electrical Data for 3-Phase Power Supplies

Contents

Section		Page
Introduction		3
Electrical Consumption Data		
50 Hz	380 V	5
	400 V	6
	415 V	7
	440 V	8
	500 V	9
	690 V	10
60 Hz	208 V	11
	220 V	12
	400 V	13
	440 V	14
	460 V	15
	480 V	16
	575 V	17
	600 V	18





Rotork is the global market leader in valve automation and flow control. Our products and services are helping organisations around the world to improve efficiency, assure safety and protect the environment.

We strive always for technical excellence, innovation and the highest quality standards in everything we do. As a result, our people and products remain at the forefront of flow control technology.

Uncompromising reliability is a feature of our entire product range, from our flagship electric actuator range through to our pneumatic, hydraulic and electro-hydraulic actuators, as well as instruments, gear boxes and valve accessories.

Rotork is committed to providing first class support to each client throughout the whole life of their plant, from initial site surveys to installation, maintenance, audits and repair. From our network of national and international offices, our engineers work around the clock to maintain our position of trust.

Introduction

This guide is provided to assist in the sizing of actuator power supply cables, circuit protection devices and calculation of electrical diversity. The data provided is averaged from actuators of the same size, speed and voltage as recorded from production test data. As such it is not exact electrical data for individual actuators, however is sufficient for the above sizing calculations.

Test certificates for individual actuators provide unit specific loadings for the starting/stall and rated torque levels and are available when requested.

The data included is for standard duty, 3-phase supplies at the following common voltages only:

50 Hz	60 Hz
380	208
400	220
415	400
440	440
500	460
690	480
-	575
-	600

Actuators suitable for voltages other than shown above are available on request. In such cases, electrical supply sizing can be determined by using the nearest voltage published in this document.

To quickly access the data for your voltage, click the value in the table above.

Important Notes

- 'Test data not available' – insufficient test data available
- 'Not available at this voltage' – this particular build cannot be produced due to excess current draw

Glossary

- **Rated torque** – the catalogued torque output of the actuator at full load. Represents a torque switch setting of 100%
- **Starting / Stall** – current draw at the nominal rated voltage during the initial start of output movement or under motor stall conditions. IQ standard protection prevents stall by limiting torque to approximately 150% of rated torque when torque switch bypass feature is enabled. Stall is also limited to a maximum of 5 seconds
- **Rated Torque Current** – the average current draw at the nominal rated voltage when the actuator is producing the rated catalogue torque
- **Average (nominal) Torque** – corresponds to approximately one third of the rated catalogued torque. This value has been confirmed after decades of valve automation and provides a representative average for load across typical valve strokes
- **Average (nominal) Current** – current draw at nominal rated voltage for average nominal torque (one third rated torque)

Design Philosophy

Actuators designed for valve automation have bespoke characteristics. Unlike conventional motors, actuators are only short time duty rated. As continuous running is not a requirement with 'isolating', 'inching' and 'regulating' duty valves, actuators are rated for a standard 15 minute nominal operating time with a cyclic duration factor of 25% (S2 / S3), or Class A & B as per EN15714-2 Industrial Valves - Actuators (Part 2: Electric actuators for industrial valves - Basic requirements).

Actuator loading is not constant, it can vary from light running through to full rated and even higher when unseating 'sticky' valves. Applying traditional motor protection is flawed and can lead to spurious tripping or no protection at all.

Rotork recognises the bespoke nature of actuator design and have therefore incorporated comprehensive protection in the motor and control package.

Motor Design

Motors are designed specifically for IQ actuators and have the following features:

- Low inertia rotors
- Squirrel cage construction
- Induction windings
- TENV – Totally Enclosed Non-Ventilated
- Class F insulation
- Class B temperature rise
- Dual embedded thermostat (132 °C)
- Sealed / lubricated for life bearings
- Integral to the actuator

IQ motors meet the requirements of EN15714-2 (electric actuators) and comply with IEC60034 and NEMA MG1 where applicable. The motor is designed to reach full speed within 3 cycles of the mains frequency (approximately 60 ms for 50 Hz and 50 ms for 60 Hz). The motor torque / speed characteristic has been selected to fulfil the following requirements:

High Stall Torque in comparison with that required to operate and seat the valve. This is essential in maintaining the rated torque at reduced voltage conditions.

Pull out torque available at speed (50-70% of synchronous), which combined with the lost motion drive (hammerblow), allows the motor to reach full speed with maximum available torque before the drive is applied to the valve. This ensures good un-seating of all valve types unless fully jammed.

Introduction

Motor Control Protection

The primary protection device is the torque switch. By direct physical measurement of the actuator output torque verses the torque switch setting, effective motor and more importantly valve protection is achieved.

The IQ motor is also protected by two thermostats embedded in the motor winding providing over temperature protection if the duty exceeds the actuator rating.

Additionally STALL, PHASE ROTATION and LOST PHASE protection is included in the standard control protection package.

Using torque as the primary means of protection along with thermostat and the control protection eliminated the requirement for traditional motor protection methods and their inherent weaknesses when applied to short time duty, variable load actuators.

Power Supply Cable Sizing

When sizing cables it is important to use the STARTING/STALL figure in this document to make sure the voltage drop is limited to a maximum 15% of nominal voltage under full starting conditions.

Fuse / Protection Selection

Due to the unique nature of the actuator duty and taking into account the comprehensive control protection of the IQ, sizing of fuses or trip devices should be based on protecting the supply cable under fault conditions.

If required, protection may be enhanced by sizing trip devices to disconnect somewhere between 5 and 10 seconds at starting/stall current. This will reduce the risk of severe motor and supply cable heating under extended stall conditions while preventing spurious trips under normal operation. It should be noted that sizing trip devices in this manner may not be possible while meeting other criteria and is purely designed to protect against extreme fault conditions such as a jammed contactor when the standard control protection cannot de-energise the motor. All other operating conditions are fully protected by the standard built-in IQ control protection.

Motor Options

Extended duty cycles are available with a higher thermostat and Class H insulation for non-hazardous area applications.

Frequency Converters and UPS

Frequency converters for variable speed drives are not normally recommended as a suitable supply for IQ actuators. Where UPS systems are required for back-up operation, the power supply should have negligible harmonic distortion and should output a true sine wave. In general terms, actuators are designed to operate on power supplied conforming to recognised international standards such as EN 50160:2010.

Tolerances

The following tolerances may be accommodated for short term operation. It is not intended that long term operation is undertaken at supply voltage levels other than the nominal nameplate values of the supplied actuator. In general, the electrical power supply should conform to BS EN 50160:2007 (Voltage characteristics of electricity supplied by public distribution networks) or equivalent.

The voltage drop developed on actuator starting must be minimised by ensuring supply capacity and cable are sufficiently sized. Starting voltage drop calculation shall be based on the starting/stall currents published.

Voltage Tolerance	+/-10%	Applies to rated torque performance only; duty cycle, speed and current draw is not guaranteed
Frequency Tolerance	+/-5%	Applies to rated torque performance only; duty cycle, speed and current draw is not guaranteed
Maximum total starting voltage drop: IQ10-IQ35	-15%	Actuators capable of starting
Maximum total starting voltage drop: IQ40-IQ95	-10%	Actuators capable of starting

Non-standard tolerances	For tolerances larger than those quoted, contact Rotork
Uninterruptable power supplied	For AC systems the UPS output should conform to recognised supply standards such as BS EN 50160 in respect of waveform, harmonics etc.

Electrical Consumption Data

Click here to return to the voltage table on p3.

IQ	Mechanical Data				Electrical Data					
380 V 50 Hz	Speed	Poles	Rated Torque		Starting / Stall		Rated Torque Current	Average (nominal) Torque		
	rpm	qty	Nm	lbf.ft	A	Cos Ø	A	A	Cos Ø	kW
10	18	4	34	25	1.4	0.9	0.6	0.4	0.6	0.2
	24	4	34	25	1.6	0.9	0.6	0.5	0.6	0.2
	36	4	34	25	1.7	0.8	0.7	0.4	0.6	0.2
	48	4	34	25	2.2	0.9	0.9	0.7	0.5	0.2
	72	4	34	25	3.2	0.9	1.1	0.8	0.6	0.3
	96	4	34	25	3.2	0.9	1.4	0.9	0.6	0.3
12	18	4	81	60	3.2	0.8	1.1	0.8	0.5	0.3
	24	4	81	60	3.2	0.8	1.2	0.8	0.6	0.3
	36	4	81	60	4.2	0.9	1.5	1.1	0.5	0.4
	48	4	68	50	4.2	0.9	1.6	1.1	0.5	0.4
	72	4	48	35	4.2	0.9	1.5	1.1	0.5	0.4
	96	4	41	30	4.2	0.9	1.7	1.1	0.5	0.4
18	18	4	108	80	3.9	0.9	1.4	1.0	0.5	0.3
	24	4	108	80	4.6	0.9	1.7	1.3	0.5	0.4
	36	4	89	66	4.7	0.8	1.5	1.2	0.5	0.4
	48	4	80	59	6.4	0.8	2.1	1.6	0.4	0.4
	72	4	69	51	7.8	0.9	2.3	1.6	0.4	0.4
	96	4	60	44	7.8	0.9	2.5	2.0	0.4	0.5
	144	2	49	36	8.5	0.9	2.6	1.4	0.6	0.5
	192	2	39	29	8.5	0.9	2.5	1.7	0.5	0.6
19	18	4	135	100			No test data available			
	24	4	135	100	5.7	0.7	1.7	0.9	0.6	0.5
	36	4	135	100	6.5	0.8	2.1	1.1	0.7	0.5
	48	4	135	100	7.6	0.8	2.6	1.3	0.7	0.6
	72	4	135	100	10.0	0.8	3.4	1.8	0.7	0.8
20	18	4	203	150	7.0	0.9	2.2	1.4	0.7	0.7
	24	4	203	150	7.1	0.8	2.3	1.2	0.7	0.6
	36	4	203	150	9.3	0.8	3.0	1.5	0.7	0.7
	48	4	203	150	12.1	0.8	3.5	1.9	0.7	0.8
	72	4	176	130	14.3	0.8	4.4	2.5	0.6	1.1
	96	4	142	105	15.9	0.9	4.7	3.0	0.6	1.2
	144	4	102	75	15.9	0.9	4.7	3.0	0.6	1.2
25	18	4	400	295	15.9	0.9	4.2	3.0	0.6	1.1
	24	4	400	295	16.5	0.9	4.8	3.3	0.6	1.2
	36	4	298	220	15.9	0.8	4.5	2.9	0.6	1.1
	48	4	244	180	15.9	0.8	4.4	2.9	0.6	1.0
	72	2	244	180	20.1	0.8	6.3	2.6	0.8	1.4
	96	2	230	170	26.7	0.8	7.0	3.6	0.7	1.7
	144	2	149	110	20.2	0.8	6.9	2.8	0.8	1.6
	192	2	140	103	25.0	0.9	9.0	3.8	0.8	1.7
35	18	4	610	450	25.8	0.7	5.2	3.1	0.6	1.2
	24	4	610	450	25.8	0.7	6.0	3.3	0.7	1.4
	36	4	542	400	25.9	0.7	7.3	3.6	0.7	1.6
	48	2	474	350	32.5	0.7	9.4	3.7	0.9	2.1
	72	2	474	350	45.4	0.7	12.3	5.3	0.8	2.8
	96	2	366	270	45.5	0.7	12.0	5.3	0.8	2.7
	144	2	257	190	36.7	0.7	13.3	4.5	0.8	2.5
	192	2	257	190	50.7	0.8	13.1	7.0	0.7	2.9
40	18	4	1020	750	34.7	0.7	9.6	4.2	0.7	2.0
	24	4	1020	750	42.6	0.7	11.8	5.3	0.6	2.3
	36	4	845	625	48.8	0.7	11.9	7.4	0.6	2.5
	48	2	680	500	44.1	0.7	14.1	5.3	0.9	3.2
	72	2	680	500	56.5	0.7	16.2	6.6	0.9	3.9
	96	2	542	400	56.6	0.7	17.0	7.0	0.9	4.1
	144	2	406	300	57.0	0.7	17.9	7.2	0.9	4.3
70	18	4	1490	1100	41.7	0.7	15.2	6.0	0.8	2.8
	24	4	1490	1100	57.3	0.7	16.5	7.1	0.7	3.2
	36	2	1290	950	59.7	0.7	22.3	8.4	0.9	5.1
	48	2	1020	750	55.6	0.7	19.7	7.2	0.9	4.5
	72	2	1020	750	84.5	0.7	24.0	10.0	0.9	5.8
	96	2	745	550	71.0	0.7	23.0	8.6	0.9	5.1
	144	2	645	475	105.8	0.7	25.5	11.6	0.8	6.1
	192	2	542	400	107.2	0.7	28.3	12.2	0.9	6.7
90	18	4	2030	1500	72.9	0.7	17.0	8.6	0.7	3.9
	24	4	2030	1500	74.4	0.7	22.3	9.5	0.7	4.6
	36	4	1700	1250	80.7	0.7	24.0	11.3	0.7	5.1
	48	2	1355	1000	94.6	0.7	24.3	9.5	0.9	5.9
	72	2	1355	1000	90.8	0.7	36.2	11.9	0.9	7.2
	96	2	1020	750	91.0	0.7	30.9	10.7	0.9	6.7
	144	2	865	640	107.1	0.7	37.3	12.6	0.9	7.7
	192	2	730	540	140.2	0.7	38.5	14.4	0.9	8.2
91	144	2	1355	1000	147.2	0.6	57.1	18.5	0.9	11.3
	192	2	1355	1000	237.8	0.6	71.4	25.7	0.8	13.6
95	24	4	3000	2200	97.4	0.7	33.0	16.1	0.6	6.6

Values are subject to change without notice. Due to production tolerance variation, the electrical values shown are averages compiled from actuator production test data. Values are therefore provided for guidance only. Individual production test certificates are available on request (nominal load data not included). Rotork underwrite rated torque output only (specified tolerance -0/+10%).

Electrical Consumption Data

Click here to return to the voltage table on p3.

IQ	Mechanical Data				Electrical Data					
400 V 50 Hz	Speed	Poles	Rated Torque		Starting / Stall		Rated Torque Current	Average (nominal) Torque		
	rpm	qty	Nm	lbf.ft	A	Cos Ø	A	A	Cos Ø	kW
10	18	4	34	25	1.2	0.9	0.5	0.4	0.6	0.2
	24	4	34	25	1.5	0.9	0.6	0.4	0.6	0.2
	36	4	34	25	1.8	0.8	0.6	0.4	0.6	0.2
	48	4	34	25	1.9	0.9	0.9	0.6	0.6	0.2
	72	4	34	25	2.7	0.8	1.0	0.7	0.6	0.3
	96	4	34	25	3.4	0.9	1.3	0.9	0.6	0.3
12	18	4	81	60	2.8	0.9	1.0	0.7	0.5	0.3
	24	4	81	60	3.4	0.9	1.2	0.9	0.5	0.3
	36	4	81	60	4.4	0.9	1.5	1.2	0.5	0.4
	48	4	68	50	3.6	0.9	1.4	1.0	0.5	0.4
	72	4	48	35	3.5	0.9	1.4	0.9	0.6	0.4
	96	4	41	30	4.4	0.9	1.6	1.2	0.5	0.4
18	18	4	108	80	3.6	0.9	1.3	0.9	0.5	0.3
	24	4	108	80	4.5	0.9	1.6	1.3	0.5	0.4
	36	4	89	66	4.8	0.8	1.5	1.4	0.4	0.4
	48	4	80	59	4.8	0.8	1.8	1.3	0.4	0.4
	72	4	69	51	6.9	0.9	2.1	1.3	0.5	0.4
	96	4	60	44	6.9	0.9	2.3	1.4	0.5	0.5
	144	2	49	36	8.0	0.9	2.6	1.3	0.6	0.5
	192	2	39	29	8.0	0.9	2.5	1.6	0.6	0.6
19	18	4	135	100	5.1	0.8	1.5	0.9	0.7	0.5
	24	4	135	100	6.1	0.7	1.7	1.0	0.7	0.5
	36	4	135	100	6.7	0.8	2.0	1.1	0.7	0.5
	48	4	135	100	8.1	0.8	2.5	1.3	0.6	0.6
	72	4	135	100	10.4	0.8	3.3	1.8	0.6	0.8
20	18	4	203	150	7.4	0.9	2.1	1.6	0.6	0.7
	24	4	203	150	7.5	0.8	2.1	1.2	0.7	0.6
	36	4	203	150	9.9	0.8	2.8	1.5	0.7	0.7
	48	4	203	150	11.0	0.8	3.4	1.8	0.7	0.8
	72	4	176	130	15.0	0.9	4.2	2.8	0.6	1.1
	96	4	142	105	12.8	0.8	4.4	2.3	0.7	1.2
	144	4	102	75	16.7	0.9	4.7	3.5	0.6	1.2
25	18	4	400	295	14.9	0.9	4.0	2.7	0.6	1.1
	24	4	400	295	14.8	0.9	4.4	3.2	0.6	1.2
	36	4	298	220	15.3	0.8	4.3	2.9	0.6	1.1
	48	4	244	180	12.9	0.8	4.0	2.2	0.7	1.0
	72	2	244	180	21.2	0.8	5.7	2.6	0.8	1.4
	96	2	230	170	21.5	0.8	6.6	2.8	0.8	1.7
	144	2	149	110	21.2	0.8	6.2	2.8	0.8	1.6
	192	2	140	103	33.6	0.9	9.1	3.8	0.6	1.7
35	18	4	610	450	20.2	0.7	4.8	2.4	0.7	1.2
	24	4	610	450	20.1	0.7	5.8	2.7	0.7	1.4
	36	4	542	400	25.7	0.7	6.8	3.6	0.7	1.6
	48	2	474	350	35.4	0.7	8.4	3.7	0.8	2.1
	72	2	474	350	48.2	0.7	11.6	5.7	0.7	2.8
	96	2	366	270	35.6	0.7	12.0	4.5	0.9	2.7
	144	2	257	190	36.0	0.7	11.5	4.3	0.8	2.5
	192	2	257	190	61.2	0.8	17.1	6.4	0.7	2.9
40	18	4	1020	750	37.1	0.7	8.8	4.6	0.7	2.0
	24	4	1020	750	43.7	0.7	10.5	5.8	0.6	2.3
	36	4	845	625	33.8	0.7	11.5	4.8	0.8	2.5
	48	2	680	500	46.4	0.7	12.3	5.2	0.9	3.2
	72	2	680	500	46.7	0.7	16.6	6.0	0.9	3.9
	96	2	542	400	55.2	0.7	15.6	6.3	0.9	4.1
	144	2	406	300	58.5	0.7	16.3	7.2	0.9	4.3
70	18	4	1490	1100	42.0	0.7	12.8	4.6	0.7	2.8
	24	4	1490	1100	43.9	0.7	17.2	5.6	0.8	3.2
	36	2	1290	950	60.5	0.7	21.1	7.9	0.9	5.1
	48	2	1020	750	61.4	0.7	18.3	7.2	0.9	4.5
	72	2	1020	750	88.6	0.7	22.6	10.0	0.8	5.8
	96	2	745	550	68.9	0.7	22.6	8.1	0.9	5.1
	144	2	645	475	89.4	0.7	25.0	10.4	0.8	6.1
	192	2	542	400	90.1	0.7	28.5	10.8	0.9	6.7
90	18	4	2030	1500	77.4	0.7	18.1	9.5	0.6	3.9
	24	4	2030	1500	77.4	0.7	20.3	10.1	0.7	4.6
	36	4	1700	1250	78.3	0.7	22.3	10.6	0.7	5.1
	48	2	1355	1000	96.5	0.7	25.1	8.6	0.9	5.9
	72	2	1355	1000	96.4	0.7	29.5	10.6	0.9	7.2
	96	2	1020	750	98.2	0.7	27.9	10.9	0.9	6.7
	144	2	865	640	114.0	0.7	32.6	11.3	0.9	7.7
	192	2	730	540	128.9	0.7	36.8	13.7	0.9	8.2
91	144	2	1355	1000	186.2	0.6	47.0	18.1	0.9	11.3
	192	2	1355	1000	231.9	0.6	63.8	22.7	0.8	13.6
95	24	4	3000	2200	94.5	0.7	30.8	16.3	0.6	6.6

Values are subject to change without notice. Due to production tolerance variation, the electrical values shown are averages compiled from actuator production test data. Values are therefore provided for guidance only. Individual production test certificates are available on request (nominal load data not included). Rotork underwrite rated torque output only (specified tolerance -0/+10%).

Electrical Consumption Data

Click here to return to the voltage table on p3.

IQ	Mechanical Data				Electrical Data					
415 V 50 Hz	Speed	Poles	Rated Torque		Starting / Stall		Rated Torque Current	Average (nominal) Torque		
	rpm	qty	Nm	lbf.ft	A	Cos Ø	A	A	Cos Ø	kW
10	18	4	34	25	1.2	0.9	0.5	0.4	0.6	0.2
	24	4	34	25	1.5	0.9	0.6	0.5	0.6	0.2
	36	4	34	25	1.8	0.8	0.6	0.4	0.6	0.2
	48	4	34	25	2.0	0.9	0.9	0.6	0.6	0.2
	72	4	34	25	2.8	0.9	1.0	0.7	0.6	0.3
	96	4	34	25	3.6	0.9	1.3	0.9	0.5	0.3
12	18	4	81	60	2.9	0.8	1.0	0.7	0.5	0.3
	24	4	81	60	2.8	0.8	1.1	0.7	0.6	0.3
	36	4	81	60	3.8	0.9	1.4	1.0	0.5	0.4
	48	4	68	50	3.8	0.9	1.4	1.0	0.5	0.4
	72	4	48	35	3.6	0.9	1.4	1.0	0.6	0.4
	96	4	41	30	3.6	0.9	1.5	1.0	0.6	0.4
18	18	4	108	80	3.5	0.9	1.2	0.9	0.5	0.3
	24	4	108	80	4.6	0.9	1.6	1.3	0.5	0.4
	36	4	89	66	4.7	0.8	1.5	1.1	0.5	0.4
	48	4	80	59	5.2	0.8	1.8	1.3	0.4	0.4
	72	4	69	51	5.5	0.8	2.0	1.2	0.5	0.4
	96	4	60	44	5.5	0.8	2.0	1.5	0.5	0.5
	144	2	49	36	7.7	0.9	2.5	1.2	0.6	0.5
	192	2	39	29	7.7	0.9	2.4	1.5	0.6	0.6
19	18	4	135	100	5.6	0.8	1.6	1.1	0.7	0.5
	24	4	135	100	6.4	0.8	1.8	1.0	0.6	0.5
	36	4	135	100	7.5	0.8	2.2	1.3	0.6	0.5
	48	4	135	100	8.5	0.8	2.3	1.4	0.6	0.6
	72	4	135	100	10.9	0.8	3.2	1.9	0.6	0.8
20	18	4	203	150	7.7	0.9	2.1	1.7	0.6	0.7
	24	4	203	150	7.8	0.8	2.1	1.2	0.7	0.6
	36	4	203	150	10.4	0.8	2.7	1.6	0.6	0.7
	48	4	203	150	10.4	0.8	3.2	1.7	0.7	0.8
	72	4	176	130	13.4	0.8	4.0	2.4	0.6	1.1
	96	4	142	105	13.4	0.8	4.2	2.4	0.6	1.2
	144	4	102	75	13.4	0.8	4.3	2.4	0.6	1.2
25	18	4	400	295	13.2	0.8	3.8	2.5	0.6	1.1
	24	4	400	295	15.6	0.9	4.4	3.1	0.6	1.2
	36	4	298	220	15.7	0.9	4.2	3.0	0.5	1.1
	48	4	244	180	13.4	0.8	3.9	2.3	0.6	1.0
	72	2	244	180	22.0	0.8	5.4	2.7	0.7	1.4
	96	2	230	170	22.6	0.8	6.4	2.9	0.8	1.7
	144	2	149	110	22.1	0.8	5.9	3.0	0.8	1.6
	192	2	140	103	32.3	0.9	8.8	3.7	0.6	1.7
35	18	4	610	450	21.2	0.7	4.6	2.5	0.7	1.2
	24	4	610	450	21.3	0.7	5.5	2.7	0.7	1.4
	36	4	542	400	21.0	0.7	6.5	3.0	0.7	1.6
	48	2	474	350	36.9	0.7	7.9	3.7	0.8	2.1
	72	2	474	350	37.0	0.7	11.4	4.5	0.8	2.8
	96	2	366	270	37.4	0.7	11.0	4.5	0.8	2.7
	144	2	257	190	33.2	0.7	11.6	4.1	0.9	2.5
	192	2	257	190	30.5	0.8	26.9	4.4	0.9	2.9
40	18	4	1020	750	40.5	0.7	8.7	4.9	0.6	2.0
	24	4	1020	750	41.5	0.7	10.1	5.3	0.6	2.3
	36	4	845	625	36.3	0.7	10.9	4.9	0.7	2.5
	48	2	680	500	47.7	0.7	11.2	4.8	0.9	3.2
	72	2	680	500	48.2	0.7	14.6	6.2	0.9	3.9
	96	2	542	400	56.2	0.7	15.0	6.7	0.9	4.1
	144	2	406	300	60.9	0.7	14.9	7.0	0.9	4.3
70	18	4	1490	1100	43.6	0.7	11.6	4.9	0.8	2.8
	24	4	1490	1100	47.5	0.7	15.8	6.2	0.7	3.2
	36	2	1290	950	61.1	0.7	18.4	7.9	0.9	5.1
	48	2	1020	750	61.4	0.7	17.4	6.7	0.9	4.5
	72	2	1020	750	71.8	0.7	22.9	8.6	0.9	5.8
	96	2	745	550	72.6	0.7	20.0	7.9	0.9	5.1
	144	2	645	475	93.7	0.7	23.1	10.7	0.8	6.1
	192	2	542	400	94.2	0.7	26.2	11.5	0.8	6.7
90	18	4	2030	1500	63.5	0.7	17.8	9.0	0.6	3.9
	24	4	2030	1500	80.1	0.7	19.2	10.7	0.6	4.6
	36	4	1700	1250	82.6	0.7	20.9	11.2	0.7	5.1
	48	2	1355	1000	80.0	0.7	23.0	10.1	0.7	5.9
	72	2	1355	1000	100.3	0.7	28.7	10.7	0.9	7.2
	96	2	1020	750	102.1	0.7	26.8	11.2	0.9	6.7
	144	2	865	640	119.8	0.7	30.6	12.1	0.9	7.7
	192	2	730	540	120.0	0.7	34.7	12.6	0.9	8.2
91	144	2	1355	1000	171.4	0.6	44.2	17.5	0.9	11.3
	192	2	1355	1000	183.0	0.6	62.8	19.6	0.9	13.6
95	24	4	3000	2200	89.6	0.7	28.4	14.5	0.7	6.6

Values are subject to change without notice. Due to production tolerance variation, the electrical values shown are averages compiled from actuator production test data. Values are therefore provided for guidance only. Individual production test certificates are available on request (nominal load data not included). Rotork underwrite rated torque output only (specified tolerance -0/+10%).

Electrical Consumption Data

Click here to return to the voltage table on p3.

IQ	Mechanical Data				Electrical Data					
440 V 50 Hz	Speed	Poles	Rated Torque		Starting / Stall		Rated Torque Current	Average (nominal) Torque		
	rpm	qty	Nm	lbf.ft	A	Cos Ø	A	A	Cos Ø	kW
10	18	4	34	25	1.6	0.9	0.5	0.4	0.5	0.2
	24	4	34	25	1.4	0.9	0.5	0.4	0.6	0.2
	36	4	34	25	1.6	0.9	0.6	0.5	0.6	0.2
	48	4	34	25	2.3	0.9	0.9	0.8	0.5	0.2
	72	4	34	25	3.0	0.9	1.0	0.8	0.5	0.3
	96	4	34	25	3.0	0.9	1.2	0.8	0.6	0.3
12	18	4	81	60	2.3	0.8	0.9	0.6	0.6	0.3
	24	4	81	60	3.1	0.9	1.1	0.8	0.5	0.3
	36	4	81	60	4.0	0.9	1.4	1.1	0.5	0.4
	48	4	68	50	3.8	0.9	1.3	1.0	0.5	0.4
	72	4	48	35	3.0	0.8	1.3	0.8	0.6	0.4
	96	4	41	30	4.3	0.9	1.6	1.2	0.3	0.4
18	18	4	108	80	3.8	0.9	1.4	1.0	0.4	0.3
	24	4	108	80	3.8	0.9	1.5	1.0	0.5	0.4
	36	4	89	66	4.9	0.9	1.6	1.2	0.4	0.4
	48	4	80	59	6.0	0.9	2.1	1.4	0.4	0.4
	72	4	69	51	5.2	0.8	1.9	1.1	0.5	0.4
	96	4	60	44	5.2	0.8	1.9	1.4	0.5	0.5
	144	2	49	36	7.3	0.9	2.4	1.2	0.6	0.5
	192	2	39	29	7.3	0.9	2.2	1.4	0.6	0.6
19	18	4	135	100			No test data available			
	24	4	135	100			No test data available			
	36	4	135	100			No test data available			
	48	4	135	100	6.9	0.8	2.4	1.1	0.7	0.6
	72	4	135	100	11.6	0.8	3.1	2.2	0.6	0.8
20	18	4	203	150	7.8	0.9	2.4	1.9	0.4	0.7
	24	4	203	150	5.9	0.8	2.0	1.0	0.7	0.6
	36	4	203	150	8.4	0.8	2.6	1.3	0.7	0.7
	48	4	203	150	11.3	0.8	3.1	1.9	0.6	0.8
	72	4	176	130	11.1	0.8	3.6	1.9	0.7	1.1
	96	4	142	105	11.1	0.8	4.0	2.0	0.7	1.2
	144	4	102	75	10.9	0.9	4.2	2.0	0.7	1.2
25	18	4	400	295	15.0	0.9	3.7	3.4	0.4	1.1
	24	4	400	295	10.2	0.9	3.5	1.8	0.7	1.2
	36	4	298	220	11.0	0.8	3.5	1.9	0.7	1.1
	48	4	244	180	11.1	0.8	3.8	2.1	0.6	1.0
	72	2	244	180	17.0	0.8	5.0	2.4	0.9	1.4
	96	2	230	170	24.0	0.8	5.9	3.2	0.7	1.7
	144	2	149	110	21.5	0.9	6.1	2.8	0.5	1.6
	192	2	140	103	30.5	0.9	8.3	3.5	0.6	1.7
35	18	4	610	450	17.7	0.7	4.3	2.2	0.7	1.2
	24	4	610	450	17.2	0.7	4.9	2.4	0.8	1.4
	36	4	542	400	21.3	0.8	6.2	2.4	0.6	1.6
	48	2	474	350	32.0	0.7	7.3	3.0	0.8	2.1
	72	2	474	350	31.4	0.7	11.5	4.4	0.9	2.8
	96	2	366	270	33.0	0.7	10.9	4.0	0.9	2.7
	144	2	257	190	31.7	0.7	11.1	4.2	0.9	2.5
	192	2	257	190	28.8	0.8	25.3	4.1	0.9	2.9
40	18	4	1020	750			No test data available			
	24	4	1020	750	43.5	0.7	10.1	5.8	0.5	2.3
	36	4	845	625	36.7	0.7	9.4	4.5	0.7	2.5
	48	2	680	500			No test data available			
	72	2	680	500	71.1	0.7	15.4	4.0	0.7	3.9
	96	2	542	400	65.2	0.7	16.5	5.0	0.5	4.1
	144	2	406	300	65.7	0.7	16.5	4.5	0.6	4.3
70	18	4	1490	1100	46.2	0.7	9.9	4.7	0.7	2.8
	24	4	1490	1100	48.0	0.7	14.3	5.0	0.7	3.2
	36	2	1290	950	65.5	0.7	14.3	7.4	0.9	5.1
	48	2	1020	750	65.0	0.7	14.9	6.4	0.9	4.5
	72	2	1020	750	75.4	0.7	22.6	7.4	0.8	5.8
	96	2	745	550	75.7	0.7	18.1	7.9	0.9	5.1
	144	2	645	475	100.0	0.8	21.9	10.8	0.6	6.1
	192	2	542	400	100.3	0.8	25.2	11.9	0.7	6.7
90	18	4	2030	1500	82.9	0.7	17.5	12.4	0.4	3.9
	24	4	2030	1500	60.4	0.7	17.5	7.7	0.8	4.6
	36	4	1700	1250	59.8	0.7	23.8	8.1	0.8	5.1
	48	2	1355	1000	70.4	0.7	22.3	8.6	0.9	5.9
	72	2	1355	1000	106.0	0.7	28.5	6.3	0.7	7.2
	96	2	1020	750	106.9	0.7	27.8	6.4	0.8	6.7
	144	2	865	640	127.8	0.7	28.1	13.0	0.9	7.7
	192	2	730	540	129.0	0.7	32.7	12.1	0.8	8.2
91	144	2	1355	1000			No test data available			
	192	2	1355	1000	188.9	0.6	58.8	19.2	0.9	13.6
95	24	4	3000	2200	87.6	0.7	29.1	15.5	0.5	6.6

Values are subject to change without notice. Due to production tolerance variation, the electrical values shown are averages compiled from actuator production test data. Values are therefore provided for guidance only. Individual production test certificates are available on request (nominal load data not included). Rotork underwrite rated torque output only (specified tolerance -0/+10%).

Electrical Consumption Data

Click here to return to the voltage table on p3.

IQ	Mechanical Data				Electrical Data					
500 V 50 Hz	Speed	Poles	Rated Torque		Starting / Stall		Rated Torque Current	Average (nominal) Torque		
	rpm	qty	Nm	lbf.ft	A	Cos Ø	A	A	Cos Ø	kW
10	18	4	34	25	1.2	0.8	0.5	0.3	0.5	0.2
	24	4	34	25	1.1	0.9	0.4	0.3	0.6	0.2
	36	4	34	25	1.5	0.9	0.6	0.4	0.6	0.2
	48	4	34	25	1.8	0.9	0.7	0.5	0.4	0.2
	72	4	34	25	2.2	0.9	0.9	0.6	0.6	0.3
	96	4	34	25	2.7	0.8	1.0	0.7	0.6	0.3
12	18	4	81	60	2.2	0.9	0.8	0.6	0.6	0.3
	24	4	81	60	2.7	0.8	0.9	0.7	0.5	0.3
	36	4	81	60	3.5	0.9	1.2	1.0	0.5	0.4
	48	4	68	50	3.4	0.9	1.2	0.9	0.5	0.4
	72	4	48	35	2.8	0.9	1.1	0.7	0.5	0.4
	96	4	41	30	3.4	0.9	1.2	0.9	0.5	0.4
18	18	4	108	80	3.4	0.9	1.1	0.9	0.5	0.3
	24	4	108	80	3.5	0.9	1.3	1.0	0.5	0.4
	36	4	89	66			Not available at this voltage			
	48	4	80	59			Not available at this voltage			
	72	4	69	51			Not available at this voltage			
	96	4	60	44			Not available at this voltage			
	144	2	49	36			Not available at this voltage			
	192	2	39	29			Not available at this voltage			
19	18	4	135	100			No test data available			
	24	4	135	100			No test data available			
	36	4	135	100	6.1	0.7	1.6	1.1	0.6	0.5
	48	4	135	100	5.9	0.8	2.0	1.1	0.7	0.6
	72	4	135	100	8.6	0.8	3.3	2.8	0.6	0.8
20	18	4	203	150	5.5	0.9	1.6	1.1	0.7	0.7
	24	4	203	150	7.3	0.9	2.2	2.0	0.6	0.6
	36	4	203	150	6.9	0.8	2.3	1.2	0.7	0.7
	48	4	203	150	9.6	0.8	2.7	1.5	0.6	0.8
	72	4	176	130	12.5	0.9	3.5	2.4	0.6	1.1
	96	4	142	105	12.6	0.9	3.6	2.4	0.6	1.2
	144	4	102	75	9.5	0.9	3.8	1.6	0.8	1.2
25	18	4	400	295	12.4	0.8	3.2	2.4	0.5	1.1
	24	4	400	295	12.3	0.9	3.5	2.4	0.6	1.2
	36	4	298	220	12.4	0.9	3.4	2.4	0.6	1.1
	48	4	244	180	12.3	0.9	3.3	2.4	0.5	1.0
	72	2	244	180	18.6	0.8	4.5	2.5	0.7	1.4
	96	2	230	170	19.4	0.8	5.4	2.6	0.7	1.7
	144	2	149	110	15.5	0.8	6.2	2.8	0.6	1.6
	192	2	140	103			Not available at this voltage			
35	18	4	610	450	14.2	0.7	3.9	1.5	0.6	1.2
	24	4	610	450	19.8	0.7	4.6	2.5	0.7	1.4
	36	4	542	400	19.8	0.7	5.3	2.7	0.7	1.6
	48	2	474	350	20.2	0.7	7.5	2.6	0.9	2.1
	72	2	474	350	35.6	0.7	9.1	4.5	0.8	2.8
	96	2	366	270	34.6	0.7	9.2	4.3	0.7	2.7
	144	2	257	190	26.2	0.8	10.8	3.3	0.9	2.5
	192	2	257	190			Not available at this voltage			
40	18	4	1020	750	33.4	0.7	8.6	4.0	0.6	2.0
	24	4	1020	750	33.1	0.7	8.8	3.9	0.7	2.3
	36	4	845	625	30.8	0.7	8.3	3.8	0.7	2.5
	48	2	680	500	40.2	0.7	9.0	4.6	0.9	3.2
	72	2	680	500	54.8	0.8	13.0	4.4	0.6	3.9
	96	2	542	400	55.0	0.8	13.3	5.6	0.8	4.1
	144	2	406	300	54.2	0.7	12.8	5.5	0.8	4.3
70	18	4	1490	1100	52.0	0.8	10.7	6.4	0.6	2.8
	24	4	1490	1100	43.2	0.7	11.1	6.8	0.6	3.2
	36	2	1290	950	70.6	0.7	15.8	5.5	0.6	5.1
	48	2	1020	750	46.1	0.7	14.0	6.1	0.9	4.5
	72	2	1020	750	68.1	0.7	17.6	7.7	0.8	5.8
	96	2	745	550	70.9	0.7	17.0	6.7	0.7	5.1
	144	2	645	475	70.9	0.8	21.5	7.8	0.8	6.1
	192	2	542	400	69.5	0.7	25.3	7.1	0.7	6.7
90	18	4	2030	1500	63.0	0.8	15.0	8.6	0.6	3.9
	24	4	2030	1500	65.5	0.7	17.7	7.0	0.4	4.6
	36	4	1700	1250	65.1	0.7	19.9	7.9	0.5	5.1
	48	2	1355	1000	75.3	0.7	18.9	6.2	0.8	5.9
	72	2	1355	1000	108.6	0.8	24.0	8.6	0.4	7.2
	96	2	1020	750	100.0	1.0	25.0	14.3	0.6	6.7
	144	2	865	640	74.9	0.7	33.1	9.5	0.9	7.7
	192	2	730	540	100.0	1.0	31.0	13.7	0.8	8.2
91	144	2	1355	1000			No test data available			
	192	2	1355	1000			No test data available			
95	24	4	3000	2200	77.9	0.7	25.0	13.1	0.6	6.6

Values are subject to change without notice. Due to production tolerance variation, the electrical values shown are averages compiled from actuator production test data. Values are therefore provided for guidance only. Individual production test certificates are available on request (nominal load data not included). Rotork underwrite rated torque output only (specified tolerance -0/+10%).

Electrical Consumption Data

Click here to return to the voltage table on p3.

IQ	Mechanical Data				Electrical Data					
690 V 50 Hz	Speed	Poles	Rated Torque		Starting / Stall		Rated Torque Current	Average (nominal) Torque		
	rpm	qty	Nm	lbf.ft	A	Cos Ø	A	A	Cos Ø	kW
10	18	4	34	25	0.8	0.9	0.3	0.2	0.5	0.2
	24	4	34	25	0.9	0.9	0.5	0.3	0.6	0.2
	36	4	34	25	0.9	0.9	0.4	0.3	0.6	0.2
	48	4	34	25	1.2	0.9	0.5	0.4	0.6	0.2
	72	4	34	25	1.7	0.8	0.6	0.4	0.6	0.3
	96	4	34	25	2.1	0.9	0.8	0.6	0.6	0.3
12	18	4	81	60	1.7	0.8	0.6	0.4	0.6	0.3
	24	4	81	60	1.7	0.9	0.6	0.4	0.6	0.3
	36	4	81	60	2.8	0.9	0.9	0.8	0.5	0.4
	48	4	68	50	2.2	0.9	0.9	0.6	0.6	0.4
	72	4	48	35	2.6	0.9	0.9	0.8	0.5	0.4
	96	4	41	30	2.8	0.9	1.0	0.8	0.4	0.4
18	18	4	108	80	2.7	0.9	0.9	0.7	0.4	0.3
	24	4	108	80	2.8	0.9	0.9	0.8	0.5	0.4
	36	4	89	66			Not available at this voltage			
	48	4	80	59			Not available at this voltage			
	72	4	69	51			Not available at this voltage			
	96	4	60	44			Not available at this voltage			
	144	2	49	36			Not available at this voltage			
	192	2	39	29			Not available at this voltage			
19	18	4	135	100			No test data available			
	24	4	135	100			No test data available			
	36	4	135	100			No test data available			
	48	4	135	100			No test data available			
	72	4	135	100	5.2	0.8	2.2	1.7	0.6	0.8
20	18	4	203	150	4.4	0.8	1.5	1.0	0.6	0.7
	24	4	203	150	4.8	0.8	1.4	0.9	0.6	0.6
	36	4	203	150	4.7	0.9	1.7	0.9	0.7	0.7
	48	4	203	150	7.1	0.8	1.9	1.1	0.6	0.8
	72	4	176	130	8.1	0.9	2.3	1.5	0.7	1.1
	96	4	142	105	8.1	0.9	2.5	1.5	0.7	1.2
	144	4	102	75	8.3	0.8	2.5	1.5	0.6	1.2
25	18	4	400	295	8.5	0.9	2.5	1.6	0.6	1.1
	24	4	400	295	7.9	0.9	2.4	1.4	0.7	1.2
	36	4	298	220	8.2	0.9	2.3	1.4	0.6	1.1
	48	4	244	180	8.1	0.9	2.2	1.4	0.7	1.0
	72	2	244	180	14.5	0.8	3.3	1.9	0.7	1.4
	96	2	230	170	14.8	0.8	3.8	2.0	0.7	1.7
	144	2	149	110	13.9	0.9	3.6	2.0	0.8	1.6
	192	2	140	103			Not available at this voltage			
35	18	4	610	450	12.0	0.8	3.6	1.6	0.7	1.2
	24	4	610	450	16.6	0.7	3.5	2.2	0.6	1.4
	36	4	542	400	16.6	0.7	4.0	2.2	0.6	1.6
	48	2	474	350	18.1	0.7	5.0	2.1	0.9	2.1
	72	2	474	350	24.2	0.7	6.5	2.8	0.8	2.8
	96	2	366	270	23.9	0.7	6.2	2.8	0.8	2.7
	144	2	257	190	23.5	0.7	6.5	2.6	0.8	2.5
	192	2	257	190			Not available at this voltage			
40	18	4	1020	750			No test data available			
	24	4	1020	750	28.6	0.7	5.7	3.6	0.5	2.3
	36	4	845	625	26.1	0.7	6.4	3.0	0.7	2.5
	48	2	680	500	38.9	0.7	7.7	2.8	0.6	3.2
	72	2	680	500	37.4	0.7	8.8	4.2	0.9	3.9
	96	2	542	400	36.8	0.7	8.8	4.0	0.9	4.1
	144	2	406	300	40.7	0.7	10.9	4.9	0.9	4.3
70	18	4	1490	1100	32.7	0.7	8.1	3.1	0.7	2.8
	24	4	1490	1100	42.5	0.7	9.7	5.3	0.5	3.2
	36	2	1290	950	45.4	0.7	10.5	4.4	0.9	5.1
	48	2	1020	750	45.0	1.0	11.0	5.5	0.7	4.5
	72	2	1020	750	50.8	0.7	15.2	2.4	0.8	5.8
	96	2	745	550	45.2	0.7	11.9	4.5	0.9	5.1
	144	2	645	475	63.9	0.7	16.8	6.6	0.5	6.1
	192	2	542	400	63.5	0.8	18.4	6.7	0.5	6.7
90	18	4	2030	1500			No test data available			
	24	4	2030	1500	48.0	0.7	11.2	6.1	0.7	4.6
	36	4	1700	1250	48.4	0.7	12.3	6.2	0.7	5.1
	48	2	1355	1000			No test data available			
	72	2	1355	1000	74.7	0.7	17.0	2.2	0.8	7.2
	96	2	1020	750	77.2	0.7	17.9	5.2	0.8	6.7
	144	2	865	640	76.7	0.7	21.4	5.1	0.7	7.7
	192	2	730	540	78.9	0.7	19.0	7.3	0.9	8.2
91	144	2	1355	1000	124.0	0.6	26.5	11.3	0.8	11.3
	192	2	1355	1000	132.9	0.6	35.1	14.1	0.9	13.6
95	24	4	3000	2200	48.1	0.7	19.6	6.6	0.7	6.6

Values are subject to change without notice. Due to production tolerance variation, the electrical values shown are averages compiled from actuator production test data. Values are therefore provided for guidance only. Individual production test certificates are available on request (nominal load data not included). Rotork underwrite rated torque output only (specified tolerance -0/+10%).

Electrical Consumption Data

Click here to return to the voltage table on p3.

IQ	Mechanical Data				Electrical Data					
208 V 60 Hz	Speed	Poles	Rated Torque		Starting / Stall		Rated Torque Current	Average (nominal) Torque		
	rpm	qty	Nm	lbf.ft	A	Cos Ø	A	A	Cos Ø	kW
10	21	4	34	25	3.7	0.8	1.2	0.9	0.4	0.2
	29	4	34	25	3.4	0.9	1.3	1.0	0.6	0.2
	43	4	34	25	5.2	0.8	1.8	1.4	0.5	0.2
	57	4	34	25	4.9	0.8	2.0	1.4	0.5	0.3
	86	4	34	25	7.0	0.8	2.4	1.6	0.6	0.3
	115	4	34	25	6.6	0.8	3.2	1.6	0.7	0.4
12	21	4	81	60	6.6	0.8	2.4	1.5	0.5	0.3
	29	4	81	60	8.7	0.8	2.7	2.0	0.5	0.4
	43	4	81	60	10.8	0.8	3.3	2.5	0.5	0.4
	57	4	68	50	11.7	0.8	3.6	2.7	0.4	0.4
	86	4	48	35	9.4	0.8	3.1	2.1	0.6	0.4
	115	4	41	30	11.3	0.8	4.3	3.8	0.4	0.5
18	21	4	108	80	11.4	0.8	3.3	2.7	0.4	0.4
	29	4	108	80	10.8	0.8	3.5	3.7	0.4	0.5
	43	4	89	66			Not available at this voltage			
	57	4	80	59			Not available at this voltage			
	86	4	69	51			Not available at this voltage			
	115	4	60	44			Not available at this voltage			
	173	2	49	36			Not available at this voltage			
	230	2	39	29			Not available at this voltage			
19	21	4	135	100			No test data available			
	29	4	135	100			No test data available			
	43	4	135	100			No test data available			
	57	4	135	100			No test data available			
	86	4	135	100			No test data available			
20	21	4	203	150	20.0	0.8	5.2	3.9	0.6	0.7
	29	4	203	150	19.1	0.8	5.1	2.7	0.7	0.7
	43	4	203	150	19.1	0.8	6.6	2.9	0.8	0.8
	57	4	203	150	33.0	0.8	7.9	5.0	0.6	1.0
	86	4	176	130	32.5	0.8	9.7	5.4	0.7	1.3
	115	4	142	105	33.2	0.8	10.4	5.3	0.6	1.3
	173	4	102	75	36.1	0.7	10.5	9.8	0.5	1.5
25	21	4	400	295	34.0	0.8	11.0	8.1	0.4	1.4
	29	4	400	295	33.5	0.8	10.3	5.7	0.7	1.4
	43	4	298	220	43.6	0.8	10.5	8.6	0.5	1.3
	57	4	244	180	34.0	0.8	13.1	10.0	0.4	1.2
	86	2	244	180	50.0	0.8	14.0	6.3	0.7	1.8
	115	2	230	170	58.1	0.9	15.8	7.1	0.8	1.9
	173	2	149	110	50.0	0.8	15.0	7.1	0.7	1.8
	192	2	140	103			Not available at this voltage			
35	21	4	610	450	51.0	0.8	13.5	6.6	0.7	1.4
	29	4	610	450	60.0	0.9	16.0	11.9	0.5	1.7
	43	4	542	400	59.8	0.7	16.9	8.5	0.7	2.0
	57	2	474	350	61.3	0.7	18.8	8.2	0.9	2.6
	86	2	474	350	90.0	0.9	25.0	21.1	0.5	3.3
	115	2	366	270	87.9	0.7	24.5	10.0	0.9	3.2
	173	2	257	190	90.0	0.9	25.0	21.1	0.5	3.1
	192	2	257	190			Not available at this voltage			
40	21	4	1020	750			Not available at this voltage			
	29	4	1020	750			Not available at this voltage			
	43	4	845	625			Not available at this voltage			
	57	2	680	500			Not available at this voltage			
	86	2	680	500			Not available at this voltage			
	115	2	542	400			Not available at this voltage			
	173	2	406	300			Not available at this voltage			
70	21	4	1490	1100			Not available at this voltage			
	29	4	1490	1100			Not available at this voltage			
	43	2	1290	950			Not available at this voltage			
	57	2	1020	750			Not available at this voltage			
	86	2	1020	750			Not available at this voltage			
	115	2	745	550			Not available at this voltage			
	173	2	645	475			Not available at this voltage			
	230	2	542	400			Not available at this voltage			
90	21	4	2030	1500			Not available at this voltage			
	29	4	2030	1500			Not available at this voltage			
	43	4	1700	1250			Not available at this voltage			
	57	2	1355	1000			Not available at this voltage			
	86	2	1355	1000			Not available at this voltage			
	115	2	1020	750			Not available at this voltage			
	173	2	865	640			Not available at this voltage			
	230	2	730	540			Not available at this voltage			
91	173	2	1355	1000			Not available at this voltage			
	230	2	1355	1000			Not available at this voltage			
95	29	4	3000	2200			Not available at this voltage			

Values are subject to change without notice. Due to production tolerance variation, the electrical values shown are averages compiled from actuator production test data. Values are therefore provided for guidance only. Individual production test certificates are available on request (nominal load data not included). Rotork underwrite rated torque output only (specified tolerance -0/+10%).

Electrical Consumption Data

Click here to return to the voltage table on p3.

IQ	Mechanical Data				Electrical Data					
220 V 60 Hz	Speed	Poles	Rated Torque		Starting / Stall		Rated Torque Current	Average (nominal) Torque		
	rpm	qty	Nm	lbf.ft	A	Cos Ø	A	A	Cos Ø	kW
10	21	4	34	25	3.1	0.8	1.0	0.8	0.5	0.2
	29	4	34	25	4.6	0.8	1.4	1.1	0.4	0.2
	43	4	34	25	4.3	0.9	1.7	1.4	0.4	0.2
	57	4	34	25	5.1	0.8	1.9	1.4	0.4	0.3
	86	4	34	25	6.9	0.9	2.2	1.7	0.5	0.3
	115	4	34	25	7.5	0.8	2.8	1.7	0.5	0.4
12	21	4	81	60	7.3	0.8	2.2	1.6	0.4	0.3
	29	4	81	60	7.2	0.8	2.5	1.8	0.5	0.4
	43	4	81	60	9.6	0.8	3.0	2.3	0.5	0.4
	57	4	68	50	9.7	0.8	3.1	2.3	0.5	0.4
	86	4	48	35	9.2	0.8	3.2	2.1	0.4	0.4
	115	4	41	30	11.3	0.8	4.3	3.6	0.4	0.5
18	21	4	108	80	9.9	0.8	2.8	2.1	0.4	0.4
	29	4	108	80	10.6	0.8	3.5	2.6	0.5	0.5
	43	4	89	66			Not available at this voltage			
	57	4	80	59			Not available at this voltage			
	86	4	69	51			Not available at this voltage			
	115	4	60	44			Not available at this voltage			
	173	2	49	36			Not available at this voltage			
	230	2	39	29			Not available at this voltage			
19	21	4	135	100			No test data available			
	29	4	135	100	14.1	0.7	3.4	2.1	0.6	0.5
	43	4	135	100	18.0	0.7	4.3	2.6	0.5	0.6
	57	4	135	100	16.4	0.7	5.2	2.6	0.7	0.7
	86	4	135	100			No test data available			
20	21	4	203	150	16.3	0.8	4.6	3.0	0.6	0.7
	29	4	203	150	26.1	0.7	5.7	3.3	0.5	0.7
	43	4	203	150	23.3	0.8	6.3	3.2	0.6	0.8
	57	4	203	150	27.7	0.8	6.8	3.9	0.6	1.0
	86	4	176	130	33.8	0.8	8.2	5.2	0.6	1.3
	115	4	142	105	36.6	0.8	9.2	6.1	0.7	1.3
	173	4	102	75	33.6	0.8	9.6	4.9	0.4	1.5
25	21	4	400	295	34.0	0.8	11.0	7.7	0.4	1.4
	29	4	400	295	36.1	0.8	9.1	6.2	0.5	1.4
	43	4	298	220	35.6	0.8	8.7	6.0	0.5	1.3
	57	4	244	180	34.0	0.8	9.1	5.1	0.5	1.2
	86	2	244	180	59.0	0.8	12.5	6.2	0.6	1.8
	115	2	230	170	45.9	0.8	14.7	5.9	0.8	1.9
	173	2	149	110	46.2	0.8	13.7	5.0	0.6	1.8
	230	2	140	103			Not available at this voltage			
35	21	4	610	450	51.0	0.8	14.5	6.2	0.7	1.4
	29	4	610	450	58.1	0.7	12.0	6.2	0.6	1.7
	43	4	542	400	57.4	0.7	13.6	7.3	0.7	2.0
	57	2	474	350	71.4	0.8	17.2	5.6	0.8	2.6
	86	2	474	350	97.0	0.7	22.3	8.4	0.7	3.3
	115	2	366	270	90.0	0.9	25.0	19.8	0.5	3.2
	173	2	257	190	90.0	0.9	25.0	19.9	0.5	3.1
	230	2	257	190			Not available at this voltage			
40	21	4	1020	750			Not available at this voltage			
	29	4	1020	750			Not available at this voltage			
	43	4	845	625			Not available at this voltage			
	57	2	680	500			Not available at this voltage			
	86	2	680	500			Not available at this voltage			
	115	2	542	400			Not available at this voltage			
	173	2	406	300			Not available at this voltage			
70	21	4	1490	1100			Not available at this voltage			
	29	4	1490	1100			Not available at this voltage			
	43	2	1290	950			Not available at this voltage			
	57	2	1020	750			Not available at this voltage			
	86	2	1020	750			Not available at this voltage			
	115	2	745	550			Not available at this voltage			
	173	2	645	475			Not available at this voltage			
	230	2	542	400			Not available at this voltage			
90	21	4	2030	1500			Not available at this voltage			
	29	4	2030	1500			Not available at this voltage			
	43	4	1700	1250			Not available at this voltage			
	57	2	1355	1000			Not available at this voltage			
	86	2	1355	1000			Not available at this voltage			
	115	2	1020	750			Not available at this voltage			
	173	2	865	640			Not available at this voltage			
	230	2	730	540			Not available at this voltage			
91	173	2	1355	1000			Not available at this voltage			
	230	2	1355	1000			Not available at this voltage			
95	29	4	3000	2200			Not available at this voltage			

Values are subject to change without notice. Due to production tolerance variation, the electrical values shown are averages compiled from actuator production test data. Values are therefore provided for guidance only. Individual production test certificates are available on request (nominal load data not included). Rotork underwrite rated torque output only (specified tolerance -0/+10%).

Electrical Consumption Data

Click here to return to the voltage table on p3.

IQ	Mechanical Data				Electrical Data					
400 V 60 Hz	Speed	Poles	Rated Torque		Starting / Stall		Rated Torque Current	Average (nominal) Torque		
	rpm	qty	Nm	lbf.ft	A	Cos Ø	A	A	Cos Ø	kW
10	21	4	34	25	1.8	0.8	0.6	0.5	0.5	0.2
	29	4	34	25	2.0	0.9	0.7	0.5	0.5	0.2
	43	4	34	25	2.5	0.8	0.9	0.7	0.5	0.2
	57	4	34	25	2.6	0.8	1.0	0.7	0.6	0.3
	86	4	34	25	5.0	0.9	1.3	1.0	0.5	0.3
	115	4	34	25	4.7	0.8	1.6	1.1	0.4	0.4
12	21	4	81	60	3.6	0.8	1.1	0.9	0.5	0.3
	29	4	81	60	4.7	0.8	1.4	1.0	0.5	0.4
	43	4	81	60	4.9	0.8	1.7	1.1	0.5	0.4
	57	4	68	50	5.8	0.8	1.8	1.4	0.5	0.4
	86	4	48	35	5.7	0.8	1.8	1.4	0.5	0.4
	115	4	41	30	7.1	0.9	2.4	2.0	0.4	0.5
18	21	4	108	80	4.9	0.8	1.5	1.1	0.5	0.4
	29	4	108	80	6.6	0.8	2.0	1.7	0.5	0.5
	43	4	89	66			Not available at this voltage			
	57	4	80	59			Not available at this voltage			
	86	4	69	51			Not available at this voltage			
	115	4	60	44			Not available at this voltage			
	173	2	49	36			Not available at this voltage			
	230	2	39	29			Not available at this voltage			
19	21	4	135	100			No test data available			
	29	4	135	100			No test data available			
	43	4	135	100			No test data available			
	57	4	135	100	11.8	0.8	3.2	2.3	0.4	0.7
	86	4	135	100			No test data available			
20	21	4	203	150	10.4	0.8	2.5	1.7	0.6	0.7
	29	4	203	150	11.8	0.8	3.0	2.0	0.6	0.7
	43	4	203	150	15.2	0.8	3.3	2.1	0.6	0.8
	57	4	203	150	17.5	0.8	4.1	2.6	0.6	1.0
	86	4	176	130	17.8	0.8	4.9	2.8	0.6	1.3
	115	4	142	105	18.1	0.8	5.4	2.9	0.7	1.3
	173	4	102	75	18.7	0.8	5.2	5.2	0.5	1.5
25	21	4	400	295	21.2	0.8	5.0	3.9	0.5	1.4
	29	4	400	295	22.3	0.8	5.3	4.1	0.5	1.4
	43	4	298	220	21.1	0.8	5.2	4.0	0.5	1.3
	57	4	244	180	17.7	0.8	4.7	2.7	0.7	1.2
	86	2	244	180	31.4	0.8	6.9	3.7	0.7	1.8
	115	2	230	170	30.9	0.8	7.7	3.9	0.7	1.9
	173	2	149	110	31.1	0.8	7.7	3.4	0.5	1.8
	230	2	140	103			Not available at this voltage			
35	21	4	610	450	26.2	0.8	7.2	3.3	0.7	1.4
	29	4	610	450	30.0	0.7	6.8	3.9	0.6	1.7
	43	4	542	400	33.6	0.7	8.1	4.5	0.7	2.0
	57	2	474	350	36.6	0.7	10.1	4.3	0.9	2.6
	86	2	474	350	58.0	0.7	13.8	6.9	0.7	3.3
	115	2	366	270	47.9	0.7	13.3	5.7	0.8	3.2
	173	2	257	190	46.0	0.7	13.4	4.8	0.8	3.1
	230	2	257	190			Not available at this voltage			
40	21	4	1020	750	56.6	0.7	12.5	4.7	0.5	2.5
	29	4	1020	750	46.4	0.7	12.5	5.3	0.6	2.8
	43	4	845	625	44.7	0.7	12.0	5.8	0.7	3.2
	57	2	680	500	56.2	0.7	13.1	6.6	0.9	3.8
	86	2	680	500	66.9	0.7	19.6	8.0	0.9	4.9
	115	2	542	400	53.2	0.6	19.9	7.8	0.9	5.0
	173	2	406	300	77.9	0.7	19.8	8.8	0.8	5.1
70	21	4	1490	1100	70.3	0.7	16.1	2.5	0.6	3.8
	29	4	1490	1100	74.7	0.6	19.0	8.9	0.7	4.1
	43	2	1290	950	96.0	0.9	20.5	9.1	0.8	6.1
	57	2	1020	750	77.1	0.7	23.3	32.3	0.8	6.0
	86	2	1020	750	104.7	0.7	26.0	12.2	0.8	6.7
	115	2	745	550	99.6	0.7	30.8	6.4	0.9	6.3
	173	2	645	475	95.8	0.7	30.9	11.4	0.9	7.3
	230	2	542	400	96.5	0.7	40.3	7.8	0.9	7.8
90	21	4	2030	1500	98.9	0.7	20.9	5.5	0.7	4.3
	29	4	2030	1500	101.7	0.7	25.7	10.3	0.4	5.4
	43	4	1700	1250	81.8	0.7	26.5	10.5	0.8	5.7
	57	2	1355	1000	106.1	0.7	24.8	46.1	0.7	7.3
	86	2	1355	1000	157.2	0.7	35.7	6.9	0.3	8.4
	115	2	1020	750	183.7	0.8	44.9	16.0	0.8	8.0
	173	2	865	640	128.1	0.7	38.8	15.9	0.9	9.2
	230	2	730	540	168.1	0.7	48.3	12.0	0.7	10.0
91	173	2	1355	1000			Not available at this voltage			
	230	2	1355	1000			Not available at this voltage			
95	29	4	3000	2200	112.0	0.7	32.7	18.0	0.6	8.1

Values are subject to change without notice. Due to production tolerance variation, the electrical values shown are averages compiled from actuator production test data. Values are therefore provided for guidance only. Individual production test certificates are available on request (nominal load data not included). Rotork underwrite rated torque output only (specified tolerance -0/+10%).

Electrical Consumption Data

Click here to return to the voltage table on p3.

IQ	Mechanical Data				Electrical Data					
440 V 60 Hz	Speed	Poles	Rated Torque		Starting / Stall		Rated Torque Current	Average (nominal) Torque		
	rpm	qty	Nm	lbf.ft	A	Cos Ø	A	A	Cos Ø	kW
10	21	4	34	25	1.5	0.8	0.5	0.4	0.6	0.2
	29	4	34	25	2.0	0.8	0.6	0.5	0.5	0.2
	43	4	34	25	2.0	0.8	0.7	0.5	0.6	0.2
	57	4	34	25	2.5	0.8	0.9	0.7	0.5	0.3
	86	4	34	25	3.5	0.8	1.2	0.8	0.6	0.3
	115	4	34	25	4.6	0.8	1.5	1.1	0.5	0.4
12	21	4	81	60	3.7	0.8	1.0	0.8	0.5	0.3
	29	4	81	60	3.5	0.8	1.2	0.8	0.6	0.4
	43	4	81	60	4.6	0.8	1.5	1.1	0.5	0.4
	57	4	68	50	4.6	0.8	1.5	1.1	0.5	0.4
	86	4	48	35	4.6	0.8	1.5	1.1	0.5	0.4
	115	4	41	30	4.6	0.8	1.6	1.1	0.5	0.5
18	21	4	108	80	4.6	0.8	1.4	1.0	0.5	0.4
	29	4	108	80	5.9	0.8	1.8	1.5	0.4	0.5
	43	4	89	66			Not available at this voltage			
	57	4	80	59			Not available at this voltage			
	86	4	69	51			Not available at this voltage			
	115	4	60	44			Not available at this voltage			
	173	2	49	36			Not available at this voltage			
	230	2	39	29			Not available at this voltage			
19	21	4	135	100			No test data available			
	29	4	135	100	5.9	0.7	1.7	0.9	0.7	0.5
	43	4	135	100	7.0	0.7	2.0	1.1	0.7	0.6
	57	4	135	100	10.6	0.7	2.6	1.6	0.6	0.7
	86	4	135	100			No test data available			
20	21	4	203	150	7.7	0.8	2.2	1.4	0.6	0.7
	29	4	203	150	10.6	0.8	2.8	2.2	0.5	0.7
	43	4	203	150	10.2	0.8	3.0	1.5	0.7	0.8
	57	4	203	150	13.1	0.8	3.5	1.9	0.7	1.0
	86	4	176	130	17.4	0.8	4.4	2.8	0.6	1.3
	115	4	142	105	17.6	0.8	4.8	2.8	0.6	1.3
	173	4	102	75	17.6	0.8	4.6	2.8	0.6	1.5
25	21	4	400	295	17.2	0.8	4.3	2.7	0.6	1.4
	29	4	400	295	19.6	0.8	4.8	3.5	0.5	1.4
	43	4	298	220	17.4	0.8	4.4	2.8	0.6	1.3
	57	4	244	180	17.4	0.8	4.3	2.7	0.6	1.2
	86	2	244	180	28.2	0.8	6.2	3.2	0.7	1.8
	115	2	230	170	28.4	0.8	7.1	3.4	0.7	1.9
	173	2	149	110	28.7	0.8	6.9	3.6	0.8	1.8
	230	2	140	103			Not available at this voltage			
35	21	4	610	450	26.2	0.7	5.6	3.1	0.6	1.4
	29	4	610	450	27.2	0.7	6.1	3.2	0.7	1.7
	43	4	542	400	27.6	0.7	7.3	3.7	0.7	2.0
	57	2	474	350	26.8	0.7	10.4	3.7	0.9	2.6
	86	2	474	350	46.6	0.7	12.3	5.3	0.8	3.3
	115	2	366	270	48.0	0.7	11.5	5.0	0.8	3.2
	173	2	257	190	46.9	0.7	11.7	5.4	0.8	3.1
	230	2	257	190			Not available at this voltage			
40	21	4	1020	750	42.0	0.9	10.0	6.6	0.5	2.5
	29	4	1020	750	50.8	0.7	11.2	6.7	0.6	2.8
	43	4	845	625	50.9	0.7	11.1	6.6	0.6	3.2
	57	2	680	500	54.6	0.7	12.2	5.7	0.9	3.8
	86	2	680	500	72.2	0.7	14.7	7.4	0.8	4.9
	115	2	542	400	59.8	0.7	16.4	7.0	0.9	5.0
	173	2	406	300	58.6	0.7	16.9	6.9	0.9	5.1
70	21	4	1490	1100	57.0	0.8	15.0	7.5	0.7	3.8
	29	4	1490	1100	67.8	0.7	15.9	7.8	0.7	4.1
	43	2	1290	950	63.7	0.7	22.3	8.6	0.9	6.1
	57	2	1020	750	58.5	0.7	16.1	7.5	0.8	6.0
	86	2	1020	750	88.7	0.7	22.0	9.6	0.9	6.7
	115	2	745	550	88.7	0.7	20.1	10.6	0.9	6.3
	173	2	645	475	96.1	0.7	25.5	9.0	0.9	7.3
	230	2	542	400	113.6	0.7	25.5	10.7	0.9	7.8
90	21	4	2030	1500	78.6	0.7	16.5	9.1	0.8	4.3
	29	4	2030	1500	90.0	0.7	20.6	12.1	0.7	5.4
	43	4	1700	1250	91.5	0.7	21.6	11.8	0.7	5.7
	57	2	1355	1000	62.3	0.6	23.2	11.2	0.9	7.3
	86	2	1355	1000	91.8	0.6	37.6	11.5	0.9	8.4
	115	2	1020	750	96.3	0.7	30.7	7.7	0.9	8.0
	173	2	865	640	149.4	0.7	34.7	11.9	0.8	9.2
	230	2	730	540	146.7	0.7	36.1	14.4	0.9	10.0
91	173	2	1355	1000	155.7	0.5	53.1	15.7	0.9	13.5
	230	2	1355	1000	209.2	0.6	88.3	19.0	0.8	16.3
95	29	4	3000	2200	84.9	0.7	39.4	14.2	0.8	8.1

Values are subject to change without notice. Due to production tolerance variation, the electrical values shown are averages compiled from actuator production test data. Values are therefore provided for guidance only. Individual production test certificates are available on request (nominal load data not included). Rotork underwrite rated torque output only (specified tolerance -0/+10%).

Electrical Consumption Data

Click here to return to the voltage table on p3.

IQ	Mechanical Data				Electrical Data					
460 V 60 Hz	Speed	Poles	Rated Torque		Starting / Stall		Rated Torque Current	Average (nominal) Torque		
	rpm	qty	Nm	lbf.ft	A	Cos Ø	A	A	Cos Ø	kW
10	21	4	34	25	1.6	0.8	0.5	0.4	0.5	0.2
	29	4	34	25	1.9	0.8	0.6	0.5	0.5	0.2
	43	4	34	25	1.9	0.8	0.6	0.4	0.6	0.2
	57	4	34	25	2.6	0.8	0.9	0.7	0.5	0.3
	86	4	34	25	3.6	0.8	1.1	0.8	0.5	0.3
	115	4	34	25	3.7	0.8	1.4	0.9	0.5	0.4
12	21	4	81	60	3.6	0.8	1.0	0.8	0.5	0.3
	29	4	81	60	3.7	0.8	1.2	0.8	0.5	0.4
	43	4	81	60	4.8	0.8	1.5	1.1	0.5	0.4
	57	4	68	50	4.8	0.8	1.5	1.1	0.5	0.4
	86	4	48	35	4.8	0.8	1.5	1.1	0.5	0.4
	115	4	41	30	4.8	0.8	1.6	1.2	0.5	0.5
18	21	4	108	80	4.0	0.8	1.3	0.9	0.5	0.4
	29	4	108	80	5.2	0.8	1.7	1.3	0.5	0.5
	43	4	89	66	4.7	0.8	1.5	1.0	0.5	0.4
	57	4	80	59	6.4	0.8	2.1	1.3	0.4	0.4
	86	4	69	51	7.8	0.9	2.3	1.3	0.4	0.4
	115	4	60	44	7.8	0.9	2.5	1.7	0.4	0.5
	173	2	49	36	8.5	0.9	2.6	1.1	0.6	0.5
	230	2	39	29	8.5	0.9	2.5	1.4	0.5	0.6
19	21	4	135	100			No test data available			
	29	4	135	100	6.4	0.7	1.6	1.0	0.7	0.5
	43	4	135	100	8.5	0.7	2.0	1.2	0.6	0.6
	57	4	135	100	8.5	0.7	2.4	1.3	0.7	0.7
	86	4	135	100	11.1	0.7	3.2	1.8	0.7	1.0
20	21	4	203	150	8.0	0.8	2.1	1.5	0.6	0.7
	29	4	203	150	8.0	0.8	2.2	1.2	0.7	0.7
	43	4	203	150	10.6	0.8	2.8	1.5	0.7	0.8
	57	4	203	150	13.8	0.8	3.4	2.0	0.6	1.0
	86	4	176	130	16.3	0.8	4.3	2.6	0.6	1.3
	115	4	142	105	18.5	0.8	4.7	3.3	0.5	1.3
	173	4	102	75	18.3	0.8	4.7	3.3	0.6	1.5
25	21	4	400	295	17.8	0.8	4.3	3.1	0.6	1.4
	29	4	400	295	18.4	0.8	4.6	3.2	0.6	1.4
	43	4	298	220	18.2	0.8	4.4	3.0	0.5	1.3
	57	4	244	180	18.4	0.8	4.4	3.1	0.5	1.2
	86	2	244	180	22.9	0.8	5.9	2.6	0.8	1.8
	115	2	230	170	22.9	0.8	6.9	2.9	0.8	1.9
	173	2	149	110	22.9	0.8	6.5	2.8	0.8	1.8
	230	2	140	103	25.0	0.9	9.0	2.8	0.8	1.7
35	21	4	610	450	20.9	0.7	4.9	2.4	0.7	1.4
	29	4	610	450	20.8	0.7	5.9	2.7	0.8	1.7
	43	4	542	400	28.8	0.7	6.9	3.7	0.7	2.0
	57	2	474	350	34.5	0.7	8.7	3.7	0.9	2.6
	86	2	474	350	49.9	0.7	11.8	5.6	0.8	3.3
	115	2	366	270	49.4	0.7	11.1	5.3	0.8	3.2
	173	2	257	190	37.6	0.7	11.5	4.1	0.9	3.1
	230	2	257	190	50.7	0.8	13.1	5.1	0.7	2.9
40	21	4	1020	750	38.3	0.7	9.0	4.4	0.7	2.5
	29	4	1020	750	47.4	0.7	10.5	5.9	0.6	2.8
	43	4	845	625	53.5	0.7	11.2	7.7	0.5	3.2
	57	2	680	500	46.3	0.7	12.3	5.1	0.9	3.8
	86	2	680	500	63.5	0.7	14.7	6.8	0.9	4.9
	115	2	542	400	57.9	0.7	15.8	7.2	0.9	5.0
	173	2	406	300	60.3	0.7	16.5	7.4	0.9	5.1
70	21	4	1490	1100	42.8	0.6	12.7	5.5	0.8	3.8
	29	4	1490	1100	51.0	0.6	14.9	7.2	0.7	4.1
	43	2	1290	950	65.2	0.7	19.9	8.5	0.9	6.1
	57	2	1020	750	60.4	0.7	18.6	7.4	0.9	6.0
	86	2	1020	750	93.0	0.7	22.6	10.4	0.9	6.7
	115	2	745	550	79.2	0.7	21.3	8.7	0.9	6.3
	173	2	645	475	99.5	0.6	25.5	12.3	0.8	7.3
	230	2	542	400	111.3	0.6	28.1	13.2	0.8	7.8
90	21	4	2030	1500	80.8	0.7	16.0	8.6	0.6	4.3
	29	4	2030	1500	82.1	0.6	19.9	10.2	0.7	5.4
	43	4	1700	1250	81.0	0.7	21.7	10.2	0.7	5.7
	57	2	1355	1000	93.1	0.7	22.8	9.3	0.9	7.3
	86	2	1355	1000	95.2	0.6	32.1	11.4	0.9	8.4
	115	2	1020	750	100.5	0.7	26.3	9.0	0.9	8.0
	173	2	865	640	122.4	0.7	32.9	12.6	0.9	9.2
	230	2	730	540	116.5	0.7	40.1	13.7	0.9	10.0
91	173	2	1355	1000	162.4	0.6	50.5	19.0	0.9	13.5
	230	2	1355	1000	227.9	0.6	65.6	23.9	0.9	16.3
95	29	4	3000	2200	107.4	0.7	27.6	17.5	0.6	8.1

Values are subject to change without notice. Due to production tolerance variation, the electrical values shown are averages compiled from actuator production test data. Values are therefore provided for guidance only. Individual production test certificates are available on request (nominal load data not included). Rotork underwrite rated torque output only (specified tolerance -0/+10%).

Electrical Consumption Data

Click here to return to the voltage table on p3.

IQ	Mechanical Data				Electrical Data					
480 V 60 Hz	Speed	Poles	Rated Torque		Starting / Stall		Rated Torque Current	Average (nominal) Torque		
	rpm	qty	Nm	lbf.ft	A	Cos Ø	A	A	Cos Ø	kW
10	21	4	34	25	1.6	0.8	0.5	0.4	0.5	0.2
	29	4	34	25	1.9	0.8	0.6	0.5	0.5	0.2
	43	4	34	25	1.9	0.8	0.6	0.4	0.6	0.2
	57	4	34	25	2.6	0.8	0.9	0.7	0.5	0.3
	86	4	34	25	3.6	0.8	1.1	0.8	0.5	0.3
	115	4	34	25	3.7	0.8	1.4	0.9	0.5	0.4
12	21	4	81	60	3.6	0.8	1.0	0.8	0.5	0.3
	29	4	81	60	3.7	0.8	1.2	0.8	0.5	0.4
	43	4	81	60	4.8	0.8	1.5	1.1	0.5	0.4
	57	4	68	50	4.8	0.8	1.5	1.1	0.5	0.4
	86	4	48	35	4.8	0.8	1.5	1.1	0.5	0.4
	115	4	41	30	4.8	0.8	1.6	1.2	0.5	0.5
18	21	4	108	80	4.0	0.8	1.3	0.9	0.5	0.4
	29	4	108	80	5.2	0.8	1.7	1.3	0.5	0.5
	43	4	89	66	4.8	0.8	1.5	1.2	0.4	0.4
	57	4	80	59	4.8	0.8	1.8	1.1	0.4	0.4
	86	4	69	51	6.9	0.9	2.1	1.0	0.5	0.4
	115	4	60	44	6.9	0.9	2.3	1.2	0.5	0.5
	173	2	49	36	8.0	0.9	2.6	1.1	0.6	0.5
	230	2	39	29	8.0	0.9	2.5	1.3	0.6	0.6
19	21	4	135	100	5.2	0.7	1.3	0.9	0.7	0.5
	29	4	135	100			No test data available			
	43	4	135	100	9.0	0.7	1.9	1.4	0.6	0.6
	57	4	135	100	9.1	0.7	2.4	1.4	0.6	0.7
	86	4	135	100	11.7	0.7	3.3	1.9	0.6	1.0
20	21	4	203	150	8.0	0.8	2.1	1.5	0.6	0.7
	29	4	203	150	8.0	0.8	2.2	1.2	0.7	0.7
	43	4	203	150	10.6	0.8	2.8	1.5	0.7	0.8
	57	4	203	150	13.8	0.8	3.4	2.0	0.6	1.0
	86	4	176	130	16.3	0.8	4.3	2.6	0.6	1.3
	115	4	142	105	18.5	0.8	4.7	3.3	0.5	1.3
	173	4	102	75	18.3	0.8	4.7	3.3	0.6	1.5
25	21	4	400	295	17.8	0.8	4.3	3.1	0.6	1.4
	29	4	400	295	18.4	0.8	4.6	3.2	0.6	1.4
	43	4	298	220	18.2	0.8	4.4	3.0	0.5	1.3
	57	4	244	180	18.4	0.8	4.4	3.1	0.5	1.2
	86	2	244	180	22.9	0.8	5.9	2.6	0.8	1.8
	115	2	230	170	22.9	0.8	6.9	2.9	0.8	1.9
	173	2	149	110	22.9	0.8	6.5	2.8	0.8	1.8
	230	2	140	103	33.6	0.9	9.1	3.2	0.6	1.7
35	21	4	610	450	20.9	0.7	4.9	2.4	0.7	1.4
	29	4	610	450	20.8	0.7	5.9	2.7	0.8	1.7
	43	4	542	400	28.8	0.7	6.9	3.7	0.7	2.0
	57	2	474	350	34.5	0.7	8.7	3.7	0.9	2.6
	86	2	474	350	49.9	0.7	11.8	5.6	0.8	3.3
	115	2	366	270	49.4	0.7	11.1	5.3	0.8	3.2
	173	2	257	190	37.6	0.7	11.5	4.1	0.9	3.1
	230	2	257	190	61.2	0.8	17.1	5.4	0.7	2.9
40	21	4	1020	750	38.3	0.7	9.0	4.4	0.7	2.5
	29	4	1020	750	47.4	0.7	10.5	5.9	0.6	2.8
	43	4	845	625	53.5	0.7	11.2	7.7	0.5	3.2
	57	2	680	500	46.3	0.7	12.3	5.1	0.9	3.8
	86	2	680	500	63.5	0.7	14.7	6.8	0.9	4.9
	115	2	542	400	57.9	0.7	15.8	7.2	0.9	5.0
	173	2	406	300	60.3	0.7	16.5	7.4	0.9	5.1
70	21	4	1490	1100	42.8	0.6	12.7	5.5	0.8	3.8
	29	4	1490	1100	51.0	0.6	14.9	7.2	0.7	4.1
	43	2	1290	950	65.2	0.7	19.9	8.5	0.9	6.1
	57	2	1020	750	60.4	0.7	18.6	7.4	0.9	6.0
	86	2	1020	750	93.0	0.7	22.6	10.4	0.9	6.7
	115	2	745	550	79.2	0.7	21.3	8.7	0.9	6.3
	173	2	645	475	99.5	0.6	25.5	12.3	0.8	7.3
	230	2	542	400	111.3	0.6	28.1	13.2	0.8	7.8
90	21	4	2030	1500	80.8	0.7	16.0	8.6	0.6	4.3
	29	4	2030	1500	82.1	0.6	19.9	10.2	0.7	5.4
	43	4	1700	1250	81.0	0.7	21.7	10.2	0.7	5.7
	57	2	1355	1000	93.1	0.7	22.8	9.3	0.9	7.3
	86	2	1355	1000	95.2	0.6	32.1	11.4	0.9	8.4
	115	2	1020	750	100.5	0.7	26.3	9.0	0.9	8.0
	173	2	865	640	122.4	0.7	32.9	12.6	0.9	9.2
	230	2	730	540	116.5	0.7	40.1	13.7	0.9	10.0
91	173	2	1355	1000	162.4	0.6	50.5	19.0	0.9	13.5
	230	2	1355	1000	227.9	0.6	65.6	23.9	0.9	16.3
95	29	4	3000	2200	107.4	0.7	27.6	17.5	0.6	8.1

Values are subject to change without notice. Due to production tolerance variation, the electrical values shown are averages compiled from actuator production test data. Values are therefore provided for guidance only. Individual production test certificates are available on request (nominal load data not included). Rotork underwrite rated torque output only (specified tolerance -0/+10%).

Electrical Consumption Data

Click here to return to the voltage table on p3.

IQ	Mechanical Data				Electrical Data					
575 V 60 Hz	Speed	Poles	Rated Torque		Starting / Stall		Rated Torque Current	Average (nominal) Torque		
	rpm	qty	Nm	lbf.ft	A	Cos Ø	A	A	Cos Ø	kW
10	21	4	34	25	1.2	0.8	0.4	0.3	0.5	0.2
	29	4	34	25	1.5	0.8	0.5	0.4	0.5	0.2
	43	4	34	25	1.7	0.8	0.6	0.5	0.5	0.2
	57	4	34	25	2.6	0.9	0.8	0.7	0.4	0.3
	86	4	34	25	3.0	0.8	0.9	0.7	0.5	0.3
	115	4	34	25	3.7	0.8	1.2	0.9	0.5	0.4
12	21	4	81	60	2.9	0.8	0.9	0.6	0.5	0.3
	29	4	81	60	3.4	0.8	1.0	0.8	0.5	0.4
	43	4	81	60	3.8	0.8	1.2	0.9	0.5	0.4
	57	4	68	50	3.8	0.8	1.3	0.9	0.4	0.4
	86	4	48	35	3.9	0.8	1.4	0.9	0.5	0.4
	115	4	41	30	5.3	0.8	1.6	1.4	0.4	0.5
18	21	4	108	80	4.1	0.8	1.2	1.0	0.5	0.4
	29	4	108	80	4.9	0.8	1.4	1.2	0.5	0.5
	43	4	89	66			Not available at this voltage			
	57	4	80	59			Not available at this voltage			
	86	4	69	51			Not available at this voltage			
	115	4	60	44			Not available at this voltage			
	173	2	49	36			Not available at this voltage			
	230	2	39	29			Not available at this voltage			
19	21	4	135	100	4.5	0.7	1.5	0.8	0.6	0.5
	29	4	135	100			No test data available			
	43	4	135	100			No test data available			
	57	4	135	100			No test data available			
	86	4	135	100			No test data available			
20	21	4	203	150	6.2	0.8	1.8	1.1	0.6	0.7
	29	4	203	150	7.4	0.8	1.8	1.1	0.7	0.7
	43	4	203	150	10.2	0.8	2.6	1.4	0.6	0.8
	57	4	203	150	10.1	0.8	2.8	1.5	0.7	1.0
	86	4	176	130	13.3	0.8	3.4	2.2	0.6	1.3
	115	4	142	105	13.4	0.8	3.7	2.1	0.6	1.3
	173	4	102	75	15.5	0.8	3.8	3.5	0.5	1.5
25	21	4	400	295	13.0	0.8	4.0	2.2	0.6	1.4
	29	4	400	295	13.2	0.8	3.9	2.2	0.7	1.4
	43	4	298	220	13.7	0.8	3.5	2.1	0.6	1.3
	57	4	244	180	15.5	0.8	3.8	3.3	0.5	1.2
	86	2	244	180	17.8	0.8	5.2	2.6	0.8	1.8
	115	2	230	170	23.2	0.9	5.2	2.6	0.9	1.9
	173	2	149	110	17.8	0.8	4.9	2.4	0.8	1.8
	230	2	140	103			Not available at this voltage			
35	21	4	610	450	20.6	0.9	5.5	2.5	0.6	1.4
	29	4	610	450	20.3	0.7	5.8	2.4	0.8	1.7
	43	4	542	400	20.9	0.7	5.8	2.8	0.8	2.0
	57	2	474	350	26.8	0.6	6.9	2.6	0.9	2.6
	86	2	474	350	36.8	0.7	9.1	3.5	0.7	3.3
	115	2	366	270	38.2	0.9	12.0	3.4	0.9	3.2
	173	2	257	190	36.7	0.7	9.4	4.1	0.8	3.1
	230	2	257	190			Not available at this voltage			
40	21	4	1020	750	26.4	0.6	9.4	3.7	0.8	2.5
	29	4	1020	750	34.2	0.6	8.6	4.1	0.7	2.8
	43	4	845	625	41.7	0.7	9.1	5.7	0.6	3.2
	57	2	680	500	44.7	0.7	9.3	3.9	0.9	3.8
	86	2	680	500	54.2	0.7	12.4	6.1	0.9	4.9
	115	2	542	400	55.0	0.7	14.5	5.4	0.8	5.0
	173	2	406	300	55.0	0.7	16.0	5.8	0.8	5.1
70	21	4	1490	1100	50.8	0.7	8.7	10.1	0.7	3.8
	29	4	1490	1100	51.9	0.6	10.2	6.4	0.6	4.1
	43	2	1290	950	68.1	0.7	16.4	7.7	0.9	6.1
	57	2	1020	750	85.0	0.9	18.0	7.4	0.7	6.0
	86	2	1020	750	85.4	0.7	19.0	7.1	0.5	6.7
	115	2	745	550	85.0	0.9	21.0	9.1	0.7	6.3
	173	2	645	475	74.0	0.7	23.6	8.4	0.9	7.3
	230	2	542	400	85.0	0.9	28.0	10.9	0.8	7.8
90	21	4	2030	1500	71.0	0.7	15.0	6.9	0.7	4.3
	29	4	2030	1500	65.4	0.7	17.0	8.4	0.7	5.4
	43	4	1700	1250	69.4	0.7	18.4	8.1	0.7	5.7
	57	2	1355	1000			No test data available			
	86	2	1355	1000	110.0	0.8	28.0	12.5	0.7	8.4
	115	2	1020	750	78.9	0.7	26.2	8.7	0.9	8.0
	173	2	865	640	110.0	0.8	32.0	14.0	0.7	9.2
	230	2	730	540	110.0	0.8	34.0	14.3	0.8	10.0
91	173	2	1355	1000			No test data available			
	230	2	1355	1000	188.4	0.6	62.6	20.5	0.9	16.3
95	29	4	3000	2200	73.6	0.9	24.0	14.8	0.5	8.1

Values are subject to change without notice. Due to production tolerance variation, the electrical values shown are averages compiled from actuator production test data. Values are therefore provided for guidance only. Individual production test certificates are available on request (nominal load data not included). Rotork underwrite rated torque output only (specified tolerance -0/+10%).

Electrical Consumption Data

Click here to return to the voltage table on p3.

IQ	Mechanical Data				Electrical Data					
600 V 60 Hz	Speed	Poles	Rated Torque		Starting / Stall		Rated Torque Current	Average (nominal) Torque		
	rpm	qty	Nm	lbf.ft	A	Cos Ø	A	A	Cos Ø	kW
10	21	4	34	25	1.6	0.8	0.4	0.3	0.4	0.2
	29	4	34	25	1.6	0.8	0.4	0.3	0.5	0.2
	43	4	34	25	1.6	0.8	0.6	0.5	0.6	0.2
	57	4	34	25	2.0	0.8	0.6	0.5	0.5	0.3
	86	4	34	25	2.5	0.9	0.8	0.6	0.7	0.3
	115	4	34	25	3.1	0.8	1.1	0.7	0.6	0.4
12	21	4	81	60	3.4	0.9	0.9	0.5	0.5	0.3
	29	4	81	60	4.1	0.8	1.0	0.5	0.6	0.4
	43	4	81	60	4.0	0.8	1.2	1.0	0.5	0.4
	57	4	68	50	3.8	0.8	1.2	1.0	0.5	0.4
	86	4	48	35	3.0	0.8	1.1	0.7	0.6	0.4
	115	4	41	30	4.1	0.8	1.4	0.9	0.5	0.5
18	21	4	108	80	4.1	0.8	1.1	0.9	0.4	0.4
	29	4	108	80	4.1	0.8	1.3	0.7	0.5	0.5
	43	4	89	66			Not available at this voltage			
	57	4	80	59			Not available at this voltage			
	86	4	69	51			Not available at this voltage			
	115	4	60	44			Not available at this voltage			
	173	2	49	36			Not available at this voltage			
	230	2	39	29			Not available at this voltage			
19	21	4	135	100			No test data available			
	29	4	135	100			No test data available			
	43	4	135	100			No test data available			
	57	4	135	100			No test data available			
	86	4	135	100			No test data available			
20	21	4	203	150	8.7	0.8	2.0	1.7	0.4	0.7
	29	4	203	150	8.0	0.8	2.1	1.9	0.5	0.7
	43	4	203	150	8.0	0.8	2.3	1.1	0.7	0.8
	57	4	203	150	10.1	0.8	2.6	1.6	0.6	1.0
	86	4	176	130	14.0	0.8	3.4	2.3	0.6	1.3
	115	4	142	105	14.1	0.8	3.5	2.4	0.6	1.3
	173	4	102	75	13.2	0.9	3.4	2.3	0.7	1.5
25	21	4	400	295	14.1	0.8	4.0	2.4	0.6	1.4
	29	4	400	295	13.4	0.8	3.4	2.4	0.5	1.4
	43	4	298	220	14.4	0.8	3.5	2.5	0.5	1.3
	57	4	244	180	13.2	0.9	3.3	2.2	0.7	1.2
	86	2	244	180	18.6	0.8	5.7	2.5	0.6	1.8
	115	2	230	170	21.8	0.8	5.4	2.5	0.7	1.9
	173	2	149	110	20.0	0.8	4.8	2.4	0.7	1.8
	230	2	140	103			Not available at this voltage			
35	21	4	610	450	17.0	0.7	3.8	1.9	0.7	1.4
	29	4	610	450	21.4	0.7	5.2	1.7	0.4	1.7
	43	4	542	400	21.3	0.7	6.4	2.7	0.7	2.0
	57	2	474	350	26.4	0.8	7.3	2.5	0.9	2.6
	86	2	474	350	38.0	0.7	9.4	4.4	0.7	3.3
	115	2	366	270	38.9	0.7	9.3	4.2	0.7	3.2
	173	2	257	190	31.4	0.8	10.8	3.3	0.9	3.1
	230	2	257	190			Not available at this voltage			
40	21	4	1020	750	40.0	0.8	7.5	5.3	0.5	2.5
	29	4	1020	750	40.0	0.8	9.5	5.5	0.6	2.8
	43	4	845	625			No test data available			
	57	2	680	500	55.0	0.8	9.0	4.7	0.7	3.8
	86	2	680	500	55.0	0.8	13.0	5.9	0.7	4.9
	115	2	542	400	46.2	0.7	14.0	4.9	0.9	5.0
	173	2	406	300	59.0	0.7	12.6	6.5	0.8	5.1
70	21	4	1490	1100	52.0	0.8	10.7	6.4	2.8	3.8
	29	4	1490	1100	52.0	0.8	13.0	6.9	3.5	4.1
	43	2	1290	950			No test data available			
	57	2	1020	750	48.2	0.6	13.6	6.2	0.8	6.0
	86	2	1020	750	79.0	0.7	20.0	7.3	0.8	6.7
	115	2	745	550	79.0	0.7	18.2	6.9	0.8	6.3
	173	2	645	475	79.0	0.7	23.7	8.1	0.9	7.3
	230	2	542	400	79.8	0.7	20.2	8.7	0.9	7.8
90	21	4	2030	1500	63.0	0.8	15.0	8.6	0.6	4.3
	29	4	2030	1500	63.0	0.8	19.0	8.8	0.7	5.4
	43	4	1700	1250	69.0	0.6	17.5	9.1	0.7	5.7
	57	2	1355	1000	100.0	1.0	20.0	11.8	0.6	7.3
	86	2	1355	1000	100.0	1.0	25.0	14.8	0.6	8.4
	115	2	1020	750	83.9	0.7	23.1	9.5	0.9	8.0
	173	2	865	640	100.0	1.0	30.0	14.3	8.3	9.2
	230	2	730	540	100.0	1.0	31.0	13.7	9.1	10.0
91	173	2	1355	1000	161.0	0.6	51.0	20.7	0.7	13.5
	230	2	1355	1000			No test data available			
95	29	4	3000	2200	63.0	0.8	30.0	9.5	0.8	8.1

Values are subject to change without notice. Due to production tolerance variation, the electrical values shown are averages compiled from actuator production test data. Values are therefore provided for guidance only. Individual production test certificates are available on request (nominal load data not included). Rotork underwrite rated torque output only (specified tolerance -0/+10%).

Notes

rotork®



www.**rotork**.com

A full listing of our worldwide sales and service network is available on our website.

Rotork plc
Brassmill Lane, Bath, UK
tel +44 (0)1225 733200
email mail@rotork.com

PUB002-099-00
Issue 06/22

As part of a process of on-going product development, Rotork reserves the right to amend and change specifications without prior notice. Published data may be subject to change. For the very latest version release, visit our website at www.rotork.com

The name Rotork is a registered trademark. Rotork recognises all registered trademarks. Published and produced in the UK by Rotork. POLTG0522