

IE3 THREE PHASE ALUMINIUM MOTORS

ELECTRICAL CHARACTERISTICS AT 50 Hz

SIZE	MOTOR TYPE	HOUSING TYPE	RATED VALUES					STARTING VALUES				Break-down Torque Ratio Mk/ Mn	EFFICIENCY *			Cosφ	J kgm ²	Weight [B3] kg	Sound Pressure Level dBA **
			POWER		SPEED	CURRENT	TORQUE	CURRENT		TORQUE			η %						
			kW	HP	rpm	A	Nm	I _A / I _N	Δ	M _A / M _N	Δ		4/4	3/4	2/4				
2 pole 3000 rpm																			
230/400V	Q3H80M2C	Aluminium	0.75	1.0	2890	1.6	2.5	8.3	-	3.7	-	4.2	80.7	79.8	76.1	0.85	0.0014	13	57
	Q3H80M2D	Aluminium	1.1	1.5	2890	2.3	3.6	9.1	-	3.9	-	4.3	82.7	82.2	79.3	0.85	0.0017	13	57
	C Q3H80M2DE	Aluminium	1.5	2.0	2905	3.2	4.9	10.9	-	5	-	5.4	84.2	83.3	80.5	0.80	0.00224	15	59
	Q3HS90S2C	Aluminium	1.5	2.0	2910	3.3	4.9	10.9	-	5.2	-	5.4	84.2	83.3	80.5	0.80	0.0023	16	62
	Q3H90L2D	Aluminium	2.2	3.0	2917	4.3	7.2	9.2	-	3.1	-	4.9	85.9	86.4	85.2	0.87	0.0028	19	62
	C Q3H90L2E	Aluminium	3.0	4.0	2890	5.8	9.9	8.1	-	3	-	3.5	87.1	88.1	87.7	0.86	0.00318	19	63
Q3HS100L2C	Aluminium	3.0	4.0	2890	5.9	9.9	8.1	-	3.2	-	3.5	87.1	88.1	87.7	0.85	0.0031	25	66	
400/690V	C Q3H100L2DE	Aluminium	4.0	5.5	2936	8.0	13.0	3.6	10.9	16	4.8	5.7	88.1	88.1	85.8	0.82	0.00611	29	66
	Q3HS112M2C	Aluminium	4.0	5.5	2936	7.5	13.0	3.6	10.9	16	4.8	5.7	88.1	88.1	85.8	0.85	0.0064	29	68
	SC Q3H100L2E	Aluminium	5.5	7.5	2933	10.9	18.0	4.4	13.2	17	5.0	5.9	89.2	88.6	86.7	0.83	0.00612	35	66
	C Q3H112M2D	Aluminium	5.5	7.5	2920	10.5	18.1	3.5	10.5	12	3.7	5.1	89.2	89.0	87.2	0.86	0.00741	32	68
	Q3HS132S2C	Aluminium	5.5	7.5	2918	10.5	18.0	3.6	10.7	12	3.7	5.1	89.2	89.0	87.2	0.86	0.0077	37	69
	C Q3H112M2DE	Aluminium	7.5	10.0	2918	13.6	24.5	3.6	10.7	14	4.3	5.4	90.1	90.3	89.1	0.88	0.00921	42	69
	Q3HS132S2D	Aluminium	7.5	10.0	2918	13.9	24.5	3.6	10.8	14	4.3	5.4	90.1	90.3	89.1	0.88	0.0093	43	69
	C Q3H132M2A	Aluminium	11.0	15.0	2925	20.7	36.0	3.5	10.5	13	3.9	5.2	91.2	91.4	90.6	0.85	0.03489	61	69
	Q3HS160M2D	Aluminium	11.0	15.0	2925	20.7	36.0	3.5	10.5	13	3.9	5.2	91.2	91.4	90.6	0.85	0.0352	65	70
	C Q3H132M2B	Aluminium	15.0	20.0	2935	27.6	48.8	3.5	10.4	12	3.7	5.2	91.9	91.3	89.8	0.86	0.00402	77	71
	Q3HS160M2DE	Aluminium	15.0	20.0	2930	27.9	48.9	3.5	10.5	12	3.7	5.2	91.9	91.3	89.8	0.84	0.0402	79	71
	C Q3H160L2C	Aluminium	18.5	25.0	2960	32.8	59.9	3.6	10.8	11	3.4	4.8	92.4	92.5	91.6	0.89	0.0481	96	70
	C Q3H160L2D	Aluminium	22.0	30.0	2961	39.1	71.0	3.5	10.6	12	3.6	5.1	92.7	92.4	91.3	0.87	0.05539	114	70
	Q3HS180M2B	Aluminium	22.0	30.0	2961	39.1	70.7	3.5	10.5	11	3.2	5.2	92.7	92.5	91.3	0.87	0.0587	114	77
	C Q3H180M2B	Aluminium	30.0	40.0	2957	50.1	96.9	3.2	9.6	10	2.9	3.9	93.3	93.2	92.6	0.93	0.10277	148	77
	Q3H200L2C	Aluminium	30.0	40.0	2955	50.3	97.0	3.5	10.5	10	3.0	4.5	93.3	93.2	92.2	0.92	0.1028	153	78
	Q3H200L2D	Aluminium	37.0	50.0	2960	61.9	119.4	3.3	9.9	10	2.9	4.4	93.7	94.4	94.0	0.92	0.1138	166	78
	SC Q3H180L2DE	Aluminium	45.0	60	2964	74.4	145.0	3.6	10.7	1	3.0	3.9	94	93.3	92.8	0.92	0.10277	199	77
	C Q3H200L2DE	Aluminium	45.0	60.0	2964	75.2	145.0	3.6	10.7	10	3.0	2.7	94.0	93.3	92.8	0.92	0.14769	199	78
	Q3E225M2B	Aluminium	45.00	60	2976	78.8	145.0	3.8	11.5	12	3.6	5.2	94.0	93.7	93.3	0.89	0.21100	218	80
Q3E250M2B	Aluminium	55.00	75	2973	98.4	176.5	3.9	11.6	12	3.7	7.0	94.3	93.8	92.5	0.86	0.22700	247	81	
4 pole 1500 rpm																			
230/400V	Q3H80M4D	Aluminium	0.75	1.0	1445	1.7	5.0	6.7	-	2.8	-	3.4	82.5	83.2	80.6	0.77	0.00261	13	52
	C Q3H80M4DE	Aluminium	1.1	1.5	1448	2.6	7.3	7.2	-	3.1	-	3.7	82.7	82.4	89.5	0.75	0.00306	14	48
	Q3HS90S4C	Aluminium	1.1	1.5	1447	2.6	7.3	7.2	-	3.1	-	3.7	82.7	82.4	89.5	0.74	0.00328	15	54
	Q3H90L4D	Aluminium	1.5	2.0	1449	3.5	9.9	8.1	-	3.6	-	4.2	85.3	85.0	82.1	0.76	0.00526	20	53
	C Q3H90L4DE	Aluminium	2.2	3.0	1453	5.4	14.4	9.5	-	5.0	-	5.5	86.7	84.3	80.6	0.68	0.00690	25	54
	Q3HS100L4C	Aluminium	2.2	3.0	1443	4.9	14.6	9.5	-	5.0	-	5.5	86.7	84.3	80.6	0.75	0.00690	25	55
Q3H100L4D	Aluminium	3.0	4.0	1446	6.2	19.9	8.4	-	3.3	-	3.8	87.7	88.0	87.0	0.81	0.01059	31	56	
400/690V	C Q3H100L4E	Aluminium	4.0	5.5	1445	8.8	26.4	8.6	-	3.5	-	4.2	88.6	87.1	85.6	0.75	0.01124	35	56
	Q3H112M4D	Aluminium	4.0	5.5	1452	8.2	26.5	3.0	9.1	1.1	3.3	4.1	88.6	88.8	87.3	0.80	0.01383	32	54
	C Q3H112M4E	Aluminium	5.5	7.5	1443	11.25	36.4	2.8	8.3	1.0	3.1	3.8	89.6	89.2	88.3	0.80	0.01526	40	57
	Q3H132S4B	Aluminium	5.5	7.5	1467	10.6	35.8	2.8	8.5	0.7	2.0	3.8	89.6	89.1	87.6	0.84	0.03560	53	60
	Q3H132M4D	Aluminium	7.5	10.0	1467	15.2	48.8	2.7	8.2	0.8	2.3	3.8	90.4	90.7	89.6	0.80	0.04030	58	60
	C Q3H112M4E	Aluminium	5.5	7.5	1443	11.25	36.4	2.8	8.3	1.0	3.1	3.8	89.6	89.2	88.3	0.80	0.01526	40	57
	Q3HS160M4C	Aluminium	11.0	15.0	1470	21.0	71.3	2.7	8.0	0.7	2.1	3.8	91.4	91.5	90.4	0.83	0.05940	84	63
	Q3H160L4B	Aluminium	15.0	20.0	1477	30.9	97.1	2.6	7.8	0.9	2.8	3.3	92.1	92.0	90.8	0.76	0.09005	101	62
	C Q3H160L4C	Aluminium	18.5	25.0	1474	39.5	119.9	2.5	7.4	0.8	2.3	3.5	92.6	91.9	91.2	0.74	0.10511	114	58
	Q3HS180M4B	Aluminium	18.5	25.0	1474	39.5	119.9	2.5	7.4	0.8	2.3	3.5	92.6	91.9	91.2	0.74	0.11398	118	67
	Q3H180L4B	Aluminium	22.0	30.0	1485	41.6	141.7	3.1	9.2	0.9	2.8	3.6	93.0	93.1	92.3	0.83	0.18660	158	68
	C Q3H180L4C	Aluminium	30.0	40.0	1475	54.8	194.2	2.5	7.6	0.8	2.3	2.8	93.6	93.2	92.3	0.85	0.22165	187	69
	Q3H200L4D	Aluminium	30.0	40.0	1475	54.8	195.5	2.7	8.0	0.8	2.5	3.1	93.6	94.6	94.8	0.85	0.22166	194	68
	Q3E225S4B	Aluminium	37.00	50	1484	72.3	238.6	2.9	8.7	1.0	3.1	4.6	93.9	93.2	91.9	0.79	0.35800	225	71
Q3E225M4C	Aluminium	45.00	60	1483	86.9	289.5	2.8	8.4	1.0	2.9	4.8	94.2	93.7	92.8	0.81	0.39700	250	71	
Q3E250M4B	Aluminium	55.00	75	1475	106.2	357.4	2.4	7.2	0.9	2.7	4.3	94.6	94.9	94.6	0.80	0.45600	278	72	

* According to IEC 60034-2-1

** The sound pressure measurements are taken 1m away from the motor

** Tolerance +3 dBA

IE3 THREE PHASE ALUMINIUM MOTORS



MOTOR TYPE	HOUSING TYPE	RATED VALUES						STARTING VALUES				Break-down Torque Ratio Mk/ Mn	EFFICIENCY *			Cosφ	J kgm ²	Weight [B3] kg	Sound Pressure Level dBA **
		POWER		SPEED	CURRENT	TORQUE	CURRENT		TORQUE		η %								
		kW	HP	rpm	A	Nm	I _A / I _N	Δ	M _A / M _N	Δ	4/4		3/4	2/4					
6 pole 1000 rpm																			
230/400V	Q3H90L6C	Aluminium	0.75	1.0	950	2.1	7.6	4.9	-	2.5	-	3.0	78.9	78.4	74.9	0.67	0.00460	18	53
	Q3H90L6D	Aluminium	1.1	1.5	950	3.0	11.1	4.5	-	2.6	-	2.9	81.0	80.6	78.3	0.67	0.00528	20	53
	Q3H100L6D	Aluminium	1.5	2.0	960	4.1	14.9	4.8	-	2.6	-	3.0	82.5	81.7	78.2	0.65	0.01059	26	55
	Q3H112M6D	Aluminium	2.2	3.0	957	5.2	22.0	4.9	-	2.7	-	3.0	84.3	84.6	83.7	0.71	0.01383	32	57
400/690V	Q3H132S6A	Aluminium	3.0	4.0	978	7.3	29.3	1.9	5.7	0.6	2.0	2.5	85.6	85.2	82.8	0.68	0.03560	53	61
	Q3H132M6A	Aluminium	4.0	5.5	975	9.1	39.2	2.0	6.0	0.7	2.2	2.6	86.8	85.7	82.8	0.72	0.04030	58	60
	Q3H132M6B	Aluminium	5.5	7.5	971	12.0	54.1	2.1	6.3	0.7	2.1	2.6	88.0	87.6	85.3	0.75	0.05940	82	60
	Q3H160M6C	Aluminium	7.5	10.0	976	16.5	73.4	2.0	6.0	0.7	2.2	3.0	89.1	89.0	88.0	0.73	0.07540	88	62
	Q3H160L6D	Aluminium	11.0	15.0	974	24.2	107.8	2.1	6.3	0.7	2.2	3.0	90.3	90.1	89.3	0.73	0.09000	101	62
	Q3H180L6B	Aluminium	15.0	20.0	980	32.2	146.2	2.2	6.6	0.7	2.1	2.9	91.2	90.9	88.7	0.75	0.18660	155	68
	Q3H200L6C	Aluminium	18.5	25.0	981	40.3	180.1	2.3	6.9	0.6	1.9	2.7	91.7	91.6	91.3	0.72	0.23286	194	69
	Q3H200L6D	Aluminium	22.0	30.0	982	50.5	213.9	2.9	5.0	0.6	1.9	2.2	92.2	92.2	91.6	0.69	0.22166	193	69
	Q3E225M6C	Aluminium	30.0	40.0	975	59.1	293.8	1.9	6.1	0.6	1.8	2.5	92.9	92.8	91.8	0.80	0.52900	238	71

* According to IEC 60034-2-1

** The sound pressure measurements are taken 1m away from the motor

** Tolerance +3 dBA

ELECTRICAL CHARACTERISTICS AT 50 Hz

MOTOR TYPE	HOUSING TYPE	RATED VALUES					STARTING VALUES				Break-down Torque Ratio	EFFICIENCY *			Cosφ	J	Weight (B3)	Sound Pressure Level dBA **	
		POWER		SPEED	CURRENT	TORQUE	CURRENT		TORQUE			η %							
		kW	HP	rpm	A	Nm	I_A / I_N	λ	Δ	M_A / M_N		λ	Δ	Mk/ Mn					4/4
2 pole 3000 rpm																			
230/400V	Q3N80S2C	Aluminium	0.75	1	2890	1.8	2.5	7.7		3.4		4.1	80.7	77.6	73.2	0.77			57
	Q3N80S2D	Aluminium	1.1	1.5	2880	2.3	3.7	8.2		3.3		4	82.7	80.6	77.4	0.82			58
	Q3N90S2C	Aluminium	1.5	2	2885	3.1	5	7.4		2.9		3.5	84.2	82.6	80.5	0.83			61
	Q3N90S2D	Aluminium	2.2	3	2880	4.6	7.3	5.6		3.4		3.7	85.9	85.7	84.5	0.81			62
	Q3NI00S2C	Aluminium	3	4	2913	5.7	9.8	9.8		3.2		4.7	87.1	87.3	85.5	0.88			65
4 pole 1500 rpm																			
230/400V	Q3N80S4C	Aluminium	0.55	0.75	1425	1.4	3.8	6.4		3		3.4	80.8	80.4	76.8	0.7			47
	Q3N80S4D	Aluminium	0.75	1.1	1425	1.9	5.1	6		2.9		3.2	82.5	81.5	79.1	0.72			48
	Q3N90S4C	Aluminium	1.1	1.5	1433	2.5	7.3	6.9		2.9		3.6	84.1	83.8	82.3	0.77			45
	Q3N90L4D	Aluminium	1.5	2.2	1433	3.4	10	7.3		3.2		3.9	85.3	85	83.5	0.76			46
	Q3NI00S4C	Aluminium	2.2	3	1443	4.8	14.6	8		3.2		3.9	86.7	85.8	84.1	0.78			48
	Q3NI00L4D	Aluminium	3	4	1445	6.6	19.8	8		3.3		3.9	87.7	87.1	84.9	0.76			51

* According to IEC 60034-2-1

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** Tolerance +3 dBA