



Date of test:	08.01.2018	Report Number:	17812	Date of issue	25.05.2018
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Motor description						
Rated output power	kW	0,75		Manufacturer	ARÇELİK	
Rated voltage	V	400		Model Nr.	Q3H80M4D40	
Rated current	A	1,72		Serial Nr.	15683-TS	
Rated speed	min <sup>-1</sup>	1450		Duty type IEC 60034-1	S1	
Supply frequency	Hz	50		Design	-	
Number of Phases	-	3		Insulation class IEC 60085	F	
IEC 60034-30-1 (Rated)	IE-Code	IE3-80,7%		Max. Ambient temperature	°C	40

Initial motor conditions			
Test resistance	$R_1$	$\Omega$	8,06467
Winding temperature	$\theta_0$	°C	23,6
Ambient temperature	$\theta_a$	°C	23,6

6.1.3.2.1 Rated load test			
Test resistance	$R_N$	$\Omega$	9,120
Winding temperature	$\theta_N$	°C	55,6
Ambient temperature	$\theta_a$	°C	25,5

6.1.3.2.3 Load curve test			Test resistance before load test			R	$\Omega$	9,120
Rated Output Power		%	125%	115%	100%	75%	50%	25%
Torque	$T$	N m	6,25	5,72	4,99	3,67	2,42	1,20
Input Power	$P_i$	W	1140,2	1042,7	910,7	678,5	466,5	267,5
Line Current	$I$	A	2,02	1,89	1,73	1,46	1,26	1,13
Operating Speed	$n$	min <sup>-1</sup>	1430	1438	1448	1462	1475	1488
Terminal Voltage	$U$	V	400,6	399,8	399,8	400,1	400,4	399,5
Frequency	$f$	Hz	50	50	50	50	50	50
Winding Temperature	$\theta_w$	°C	38,85	39,2	39,55	39,75	39,7	39,35
			Test resistance after load test			R	$\Omega$	9,018

6.1.3.2.4 No-load test				Test resistance before no-load test				R	$\Omega$	0
Rated Voltage		%	115%	100%	95%	90%	60%	50%	40%	30%
Input Power	$P_0$	W	97,6	76,8	68,9	61,6	30,1	23,5	19,5	17,0
Line Current	$I_0$	A	1,29	1,08	1,01	0,93	0,56	0,46	0,40	0,35
Terminal Voltage	$U_0$	V	440	400	381	361	240	200	175	154
Frequency	$f_0$	Hz	50,0	50,0	50,0	50,0	50,0	50,0	50,0	50,0
Power Factor	$\cos j$	$\cos j$	0,100	0,102	0,104	0,106	0,128	0,148	0,160	0,173
Winding Temperature	$\theta_w$	°C	37,75	37,75	37,65	37,65	37,55	37,40	37,20	36,88
				Test resistance after no-load test				R	$\Omega$	9,018

6.1.3.3 Efficiency determination									
Rated output power corrected	$P_{z,\theta}$	%	125%	115%	100%	75%	50%	25%	
Output power corrected	$P_{z,\theta}$	W	934	860	755	560	372	187	
Slip corrected	$s_{,\theta}$	p.u.	0,0466	0,0413	0,0346	0,0253	0,0166	0,0080	
Input power corrected	$P_{i,\theta}$	W	1140	1043	911	678	466	267	
Iron losses	$P_{fe}$	W	34	34	35	35	36	36	
Frict. And wind.losses corrected	$P_{fw,\theta}$	W	7,37	7,47	7,60	7,79	7,96	8,14	
Additional - losees corrected	$P_{LL}$	W	6,64	5,56	4,24	2,29	0,99	0,25	
Stator losses corrected	$P_{s,\theta}$	W	112	98	81	58	43	35	
Rotor losses correctedd	$P_{r,\theta}$	W	46	38	28	15	6	2	
Power factor	$\cos \phi$	%	0,813	0,795	0,762	0,673	0,536	0,344	
Efficiency	$\eta$	%	81,9	82,4	82,9	82,6	79,8	69,9	

Tested by:	ÜNAL GÜL	Approved by:	Evren SOYDAN
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