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INSPECTION & TEST REPORT

PJT Name	삼성전자 천안 C4		
Project No.	20222310RMH482	Serial No.	20222310RMH482001~006
Type	HLE6 403-46E	Quantity	6 Units
Specification	3Phase, 750kW, 4P, 6600V, 60Hz		

TEST ITEMS

* 최종검사

1. 외관, 구조 및 치수 검사
2. 권선저항 측정
3. 구속 시험
4. 무부하 시험
5. 소음 측정
6. 진동 측정
7. 특성 산정
8. 온도상승 시험
9. 절연저항 측정
10. 내전압 시험
11. 기타(RTD & Space heater)

TEST RESULT: *Accept*

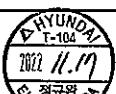
Approved By:



Reviewed and

Witnessed By:

Checked By:



Tested By:





Test Report of 3 Phase Induction Machine

PJT Name	삼성전자 천안 C4	Project no.	20222310RMH482
model no.	HLE6 403-46E	Serial no.	20222310RMH482001
Item no.	***	shaft no.	2RMH482-1

general rating

Output [kW]	750	poles	4	voltage [V]	6600
Frequency [Hz]	60.0	speed [rpm]	1790.0	current [A]	80.6
Service factor	1.15(F/F)	insulation	F	max. amb. [°C]	40
time rating	S1	enclose	TEFC - IP55	weight [Kg]	4400
DE. bearing:	6324C3	NDE. bearing:	6324C3	efficiency [pu]	0.9580

winding resistance in [Ω] at ambient temperature 18.4 [°C]

phase	R <u>u</u> -v:	R <u>v</u> -w:	R <u>w</u> -u:	averaged:	max. deviation [%]
stator	0.3024	0.3024	0.3021	0.3023	0.07
rotor	***	***	***	***	***

no load and short circuit (locked rotor)

item	[V]	[A]	[kW]	[Hz]	I _u [A]	I _v [A]	I _w [A]	deviation [%]
no load	6600.0	24.67	15.036	60.00	24.66	24.72	24.63	0.20
locked rotor	1449.35	80.82	22.006	60.00	***	***	***	***
rotor voltage	***	[V]	Direction of Rotation	C.C.W with U.V.W Connection	(Viewed from D.E.)			

vibration measurement

position	horizontal	vertical	axial	remark	stator (R/E)	68.1 / 68.8	[V]	6600
D.E.	0.5	0.4	0.2	meas. Unit	rotor (R)	***	[Hz]	60
NDE	0.6	0.4	0.2	mm/s(rms)	de. bearing	36.7	[A]	78.6

noise level in dB(A) at 1 [m] distance from major frame

averaged sound level (@)	remark	stator (R/E)	68.1 / 68.8	[V]	6600
80.5	Background noise : 76	rotor (R)	***	[Hz]	60

@ averaged value from 4 measured result (measured at front, rear, right, left side of machine)

This noise value is corrected by background noise

insulation resistance in [MΩ]

item	before test	after test	test voltage [V]	item	test voltage [V]	duration [s]
stator	8350	8320	2500	stator	AC 14200	60
Rotor	***	***	***	Rotor	*** ***	***
E.T.D.	1000	1000	500	E.T.D.	AC ***	***
heater	1000	1000	500	heater	AC 1500	60

over load and over speed

item	test value	duration [s]	Remark
over load	*** [%] of rated load(current)	***	***
over speed	*** [%] of rated speed	***	***

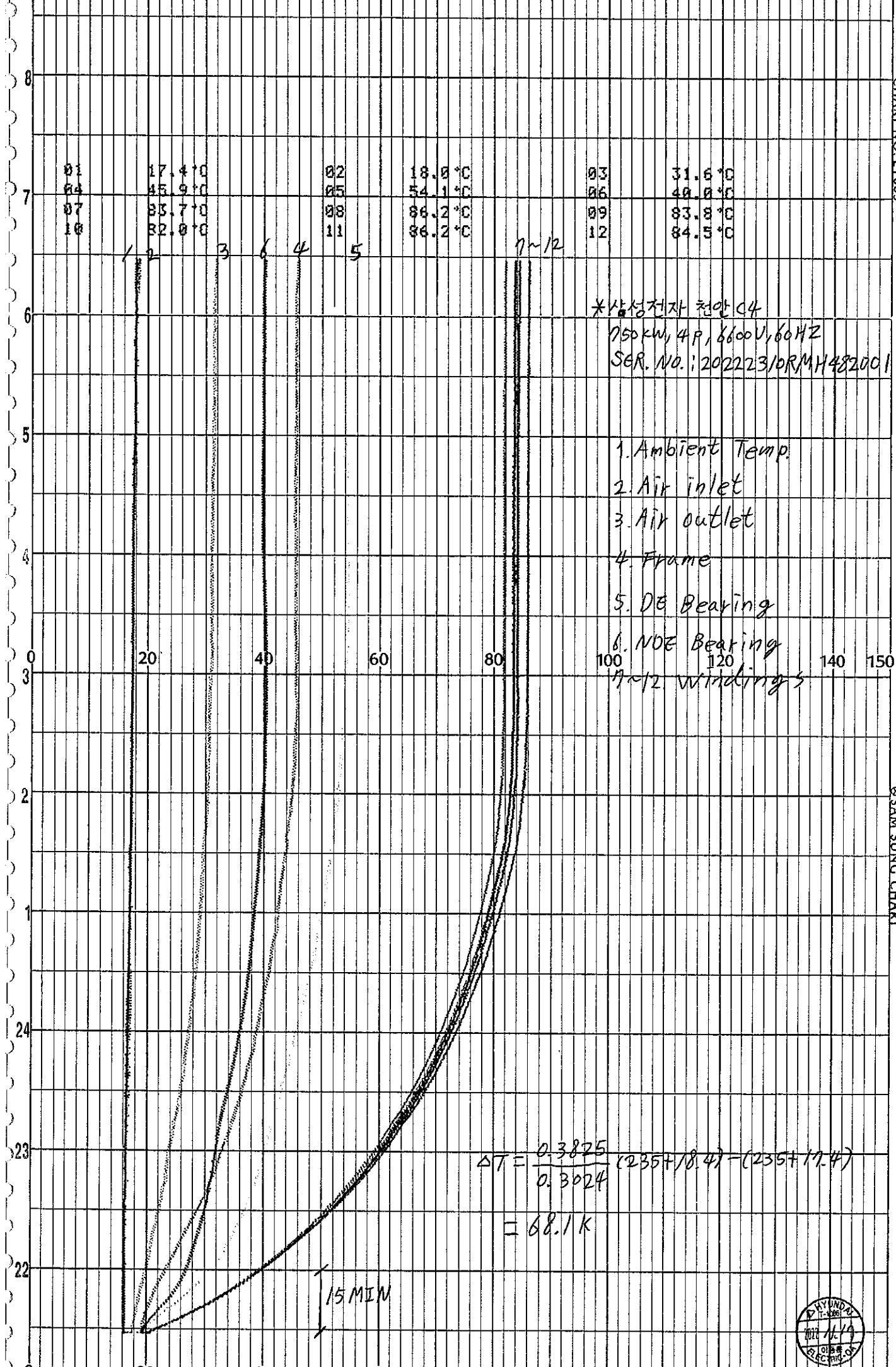
accessories and other data

space heater	1 phase	200 [W]	220 [V]	245.5 [Ω]
name of item	accessory type	Q'ty	check result	Remark
winding temperature	PT100	6	Good	***
bearing temperature	PT100	2	Good	***
air temperature	***	***	***	***
additional	***	***	***	***

* Measurement of insulation resistance before heat run : 25000MΩ

Tested By


We hereby confirm that the specified test were carried out in accordance with applicable standard(s) and that the satisfactory test result were obtained.





Determination of characteristics of 3 phase induction machine

PJT Name	삼성전자 천안 C4	Project no.	20222310RMH482
model no.	HLE6 403-46E	Serial no.	20222310RMH482001

basic rating

Output kW	750	poles	4	voltage [V]	6600
Frequency [Hz]	60.0	speed [rpm]	1790.0	current [A]	80.6
Service factor	1.15(F/F)	insulation	F	max. amb. [°C]	40

winding resistance in [Ω]

measured value at	18.4 [°C]	u-v:	0.3024	v-w:	0.3024	w-u:	0.3021
averaged phase resistance (refer to Y connection) [Ω]	0.196841			at specified temperature	95.00	[°C]	

no load and short circuit(locked rotor) + actual load point for correction

item	[V]	[A]	[kW]	[Hz]	[°C]	line-line [Ω]	[rpm]
no load	6600.0	24.67	15.036	60.00	22.90	***	***
locked rotor	393.20	80.63	9.890	15.00	18.90	***	***
	750.35	80.65	14.176	30.00	19.30	***	***
	1449.35	80.82	22.006	60.00	19.70	***	***
	2571.83	160.65	86.270	60.00	21.30	***	***
	***	***	***	***	***	***	***
actual load	***	***	***	***	***	***	***

summary of constants

temperature constant	stator: 235.0	Rotor: 235.0
constant loss	Wh = 6.697 [kW]	Wf = 8.058 [kW]
stray load loss	Wll = 3.914 [kW]	at primary current I1 = 80.60 [A]
reactance ratio	X1/X2 = 0.6700	

f2 [Hz]	1.200	15.00	30.00	60.00	60.00	***
stator current [A]	***	80.63	80.65	80.82	160.65	***
V1 [V]	3810.5	3810.5	3810.5	3810.5	3810.5	***
r1 [ohms]	0.196841	0.196841	0.196841	0.196841	0.196841	***
r2 [ohms]	0.25329	0.504504	0.809929	1.357615	1.325052	***
rfe [ohms]	6120.87	6126.23	6141.18	6153.31	6191.77	***
X1 [ohms]	4.6287E+00	4.5630E+00	4.3798E+00	4.2314E+00	3.7619E+00	***
X2 [ohms]	6.9086E+00	6.8104E+00	6.5370E+00	6.3156E+00	5.6148E+00	***
bm [mhos]	6.6636E-03	6.6609E-03	6.6528E-03	6.6463E-03	6.6257E-03	***
gfe [mhos]	1.6338E-04	1.6323E-04	1.6284E-04	1.6251E-04	1.6150E-04	***
corrected constant from actual load point reading		Xm = ***		r2 = ***		

summary of load characteristics

load [pu]	0.25	0.50	0.75	1.00	1.25	2.81
current [A]	31.2	44.5	60.7	78.6	97.9	301.8
efficiency [pu]	0.9208	0.9543	0.9638	0.9669	0.9670	0.9006
power factor [pu]	0.5718	0.7725	0.8407	0.8634	0.8661	0.6776
slip [pu]	0.00122	0.00242	0.00367	0.00501	0.00648	0.04870
torque [kg.m]	101.6	203.5	305.6	408	510.8	1198

locked rotor and break down characteristics

locked rotor current [A]	497	break down torque [pu]	2.936
locked rotor torque [pu]	0.912	***	***





Segregation of no load loss

PJT Name	삼성전자 전안 C4	Project no.	20222310RMH482
model no.	HLE6 403-46E	Serial no.	20222310RMH482001

basic rating

Output kW	750	poles	4	voltage [V]	6600
Frequency [Hz]	60.0	speed [rpm]	1790.0	current [A]	80.6
Service factor	1.15(F/F)	insulation	F	max. amb. [°C]	40

winding resistance in [Ω]

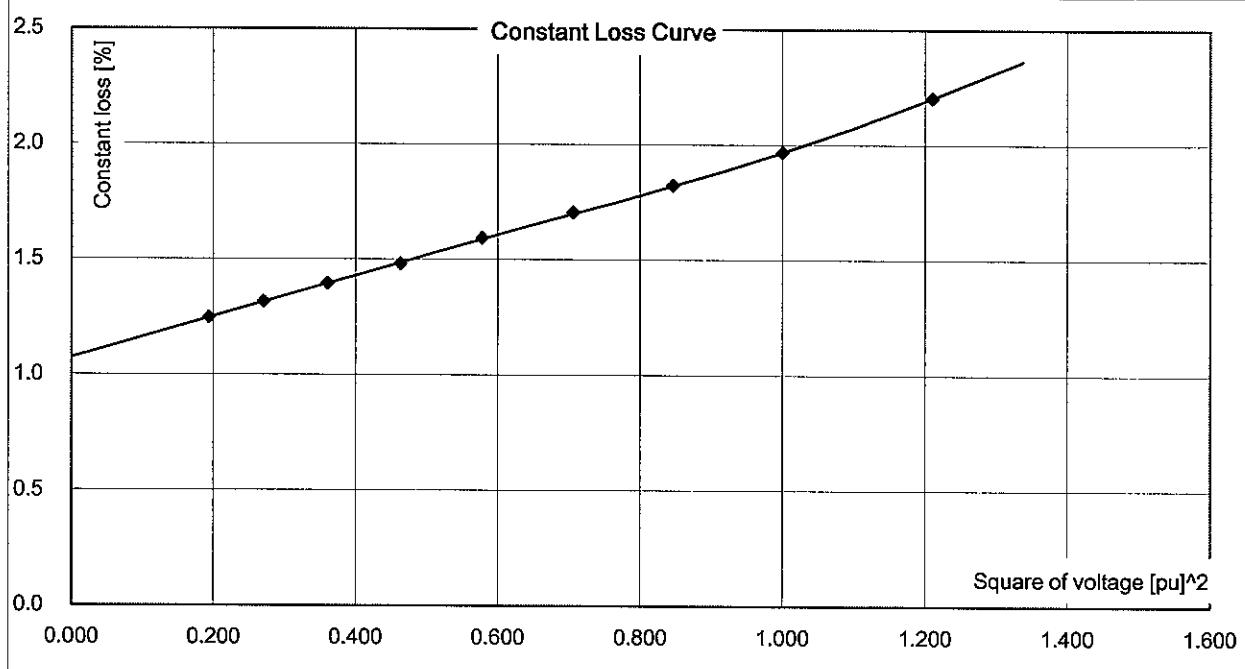
measured value at	18.40	[°C]	u-v:	0.3024	v-w:	0.3024	w-u:	0.3021
averaged phase resistance (refer to Y connection)			0.151150	[Ω]				

no load reading

[V]	[A]	[kW]	[Hz]	[rpm]	[°C]	line-line [Ω]
7260.00	31.24	16.980	60.00	***	22.90	***
6600.00	24.67	15.040	60.00	***	22.90	***
6072.50	21.49	13.880	60.00	***	22.90	***
5544.50	19.03	12.960	60.00	***	22.90	***
5016.80	17.05	12.080	60.00	***	22.90	***
4488.90	15.08	11.220	60.00	***	22.90	***
3960.70	13.31	10.550	60.00	***	22.90	***
3432.80	11.50	9.930	60.00	***	22.90	***
2904.30	9.74	9.400	60.00	***	22.90	***
***	***	***	***	***	***	***

calculation and measured result

no load core loss	[kW]	6.697
friction and windage loss	[kW]	8.058
no load current	[A]	24.70





Test Report of 3 Phase Induction Machine

PJT Name	삼성전자 천안 C4	Project no.	20222310RMH482
model no.	HLE6 403-46E	Serial no.	20222310RMH482002
Item no.	***	shaft no.	2RMH482-2

general rating

Output [kW]	750	poles	4	voltage [V]	6600
Frequency [Hz]	60.0	speed [rpm]	1790.0	current [A]	80.6
Service factor	1.15(F/F)	insulation	F	max. amb. [°C]	40
time rating	S1	enclose	TEFC - IP55	weight [Kg]	4400
DE. bearing:	6324C3	NDE. bearing:	6324C3	efficiency [pu]	0.9580

winding resistance in [Ω] at ambient temperature 20.0 [°C]

phase	Ru-v:	Rv-w:	Rw-u:	averaged:	max. deviation [%]
stator	0.3042	0.3041	0.3038	0.3040	0.08
rotor	***	***	***	***	***

no load and short circuit(locked rotor)
current unbalance

item	[V]	[A]	[kW]	[Hz]	Iu [A]	Iv [A]	Iw [A]	deviation [%]
no load	6600.0	24.83	15.14	60.00	24.75	25	24.75	0.67
locked rotor	1451.1	80.61	22.5	60.00	***	***	***	***
rotor voltage	***	[V]	Direction of Rotation	C.C.W with U.V.W Connection	(Viewed from D.E.)			

vibration measurement

position	horizontal	vertical	axial	remark	stator (R/E)	*** / ***	[V]	***
DE	0.6	0.5	0.4	meas. Unit	rotor (R)	***	[Hz]	***
NDE	0.5	0.5	0.4	mm/s(rms)	de. bearing	***	[A]	***
noise level in dB(A) at 1 [m] distance from major frame								
averaged sound level (@)		remark						
***		Background noise : ***						

@ averaged value from 4 measured result (measured at front, rear, right, left side of machine)

This noise value is corrected by background noise

insulation resistance in [MΩ]

item	before test	after test	test voltage [V]
stator	21200	22200	2500
Rotor	***	***	***
E.T.D.	1000	1000	500
heater	1000	1000	500

high voltage test

item	test voltage [V]	duration [s]
stator	AC 14200	60
Rotor	*** ***	***
E.T.D.	AC ***	***
heater	AC 1500	60

over load and over speed

item	test value	duration [s]	Remark
over load	*** [%] of rated load(current)	***	***
over speed	*** [%] of rated speed	***	***

accessories and other data

space heater	1 phase	200 [W]	220 [V]	245.4 [Ω]
name of item	accessory type	Q'ty	check result	Remark
winding temperature	PT100	6	Good	***
bearing temperature	PT100	2	Good	***
air temperature	***	***	***	***
additional	***	***	***	***

***	Tested By
 2022.11.11	
We hereby confirm that the specified test were carried out in accordance with applicable standard(s) and that the satisfactory test result were obtained.	



Determination of characteristics of 3 phase induction machine

PJT Name	삼성전자 천안 C4	Project no.	20222310RMH482
model no.	HLE6 403-46E	Serial no.	20222310RMH482002

basic rating

Output kW	750	poles	4	voltage [V]	6600
Frequency [Hz]	60.0	speed [rpm]	1790.0	current [A]	80.6
Service factor	1.15(F/F)	insulation	F	max. amb. [°C]	40

winding resistance in [Ω]

measured value at	20.0	[°C]	u-v:	0.3042	v-w:	0.3041	w-u:	0.3038
averaged phase resistance (refer to Y connection) [Ω]	0.196728		at specified temperature	95.00	[°C]			

no load and short circuit (locked rotor) + actual load point for correction

item	[V]	[A]	[kW]	[Hz]	[°C]	line-line [Ω]	[rpm]
no load	6600.0	24.83	15.140	60.00	24.20	***	***
	389.49	80.74	9.986	15.00	20.30	***	***
locked rotor	748.40	80.66	14.060	30.00	20.60	***	***
	1451.10	80.61	22.500	60.00	20.90	***	***
	2587.20	161.87	85.700	60.00	21.50	***	***
	***	***	***	***	***	***	***
actual load	***	***	***	***	***	***	***

summary of constants

temperature constant	stator: 235.0	Rotor: 235.0
constant loss	Wh = 6.331 [kW]	Wf = 8.523 [kW]
stray load loss	Wll = 3.914 [kW]	at primary current I1 = 80.60 [A]
reactance ratio	X1/X2 = 0.6700	

f2 [Hz]	1.800	15.00	30.00	60.00	60.00	***
stator current [A]	***	80.74	80.66	80.61	161.87	***
V1 [V]	3810.5	3810.5	3810.5	3810.5	3810.5	***
r1 [ohms]	0.196728	0.196728	0.196728	0.196728	0.196728	***
r2 [ohms]	0.241634	0.505481	0.796638	1.395641	1.291656	***
rfe [ohms]	6477.93	6482.32	6494.63	6505.19	6547.91	***
X1 [ohms]	4.5610E+00	4.5104E+00	4.3688E+00	4.2474E+00	3.7574E+00	***
X2 [ohms]	6.8075E+00	6.7320E+00	6.5206E+00	6.3394E+00	5.6081E+00	***
bm [mhos]	6.7052E-03	6.7030E-03	6.6967E-03	6.6913E-03	6.6696E-03	***
gfe [mhos]	1.5437E-04	1.5427E-04	1.5397E-04	1.5372E-04	1.5272E-04	***
corrected constant from actual load point reading		Xm = ***		r2 = ***		

summary of load characteristics

load [pu]	0.25	0.50	0.75	1.00	1.25	2.91
current [A]	31.3	44.6	60.7	78.5	97.8	307.9
efficiency [pu]	0.9203	0.9541	0.9638	0.9670	0.9672	0.9142
power factor [pu]	0.5698	0.7714	0.8405	0.8639	0.8672	0.6782
slip [pu]	0.00117	0.00231	0.00350	0.00477	0.00616	0.03391
torque [kg.m]	101.6	203.5	305.6	407.9	510.6	1223

locked rotor and break down characteristics

locked rotor current [A]	501	break down torque [pu]	2.998
locked rotor torque [pu]	0.824	***	***





Segregation of no load loss

PJT Name	삼성전자 천안 C4	Project no.	20222310RMH482
model no.	HLE6 403-46E	Serial no.	20222310RMH482002

basic rating

Output kW	750	poles	4	voltage [V]	6600
Frequency [Hz]	60.0	speed [rpm]	1790.0	current [A]	80.6
Service factor	1.15(F/F)	insulation	F	max. amb. [°C]	40

winding resistance in [Ω]

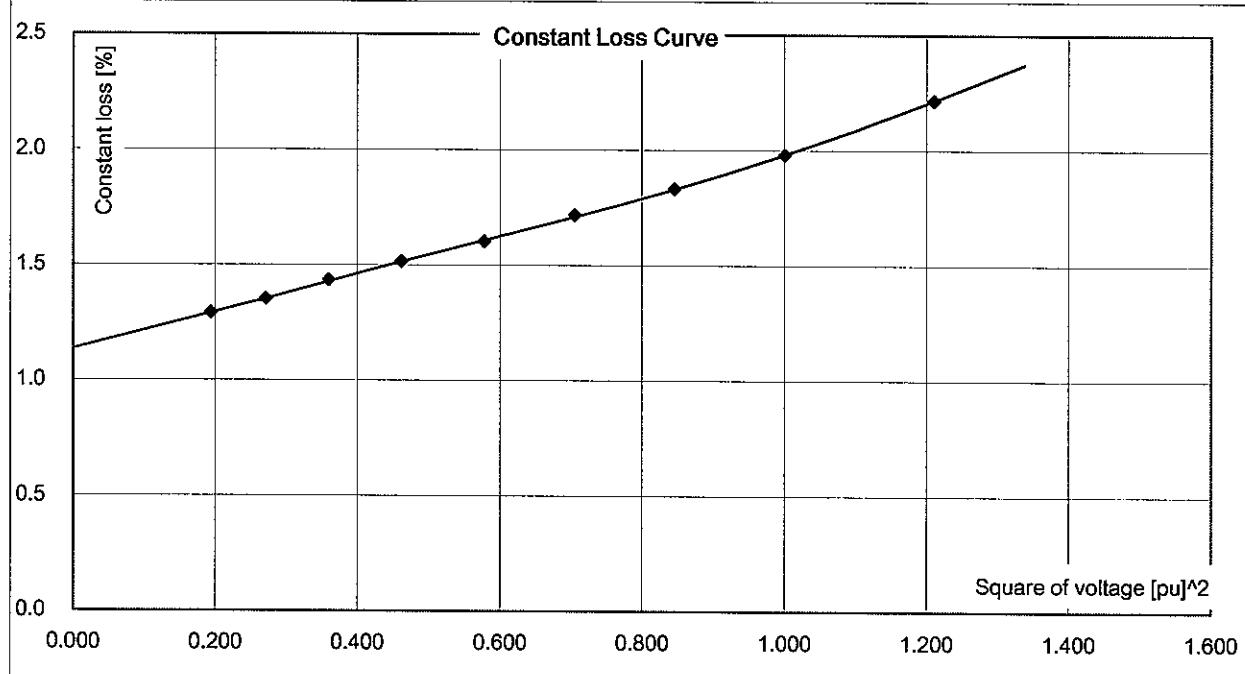
measured value at	20.00	[°C]	u-v:	0.3042	v-w:	0.3041	w-u:	0.3038
averaged phase resistance (refer to Y connection)		0.152017	[Ω]					

no load reading

[V]	[A]	[kW]	[Hz]	[rpm]	[°C]	line-line [Ω]
7260.00	31.43	17.080	60.00	***	24.20	***
6600.00	24.83	15.140	60.00	***	24.20	***
6069.00	21.36	13.960	60.00	***	24.20	***
5543.00	19.00	13.070	60.00	***	24.20	***
5016.00	16.95	12.170	60.00	***	24.20	***
4485.00	15.12	11.480	60.00	***	24.20	***
3956.00	13.28	10.850	60.00	***	24.20	***
3434.00	11.53	10.210	60.00	***	24.20	***
2904.00	9.81	9.750	60.00	***	24.20	***
***	***	***	***	***	***	***

calculation and measured result

no load core loss	[kW]	6.332
friction and windage loss	[kW]	8.523
no load current	[A]	24.80





2022 11.11



Test Report of 3 Phase Induction Machine

PJT Name	삼성전자 천안 C4	Project no.	2022310RMH482
model no.	HLE6 403-46E	Serial no.	2022310RMH482003
Item no.	***	shaft no.	2RMH482-3

general rating

Output [kW]	750	poles	4	voltage [V]	6600
Frequency [Hz]	60.0	speed [rpm]	1790.0	current [A]	80.6
Service factor	1.15(F/F)	insulation	F	max. amb. [°C]	40
time rating	S1	enclose	TEFC - IP55	weight [Kg]	4400
DE. bearing:	6324C3	NDE. bearing:	6324C3	efficiency [pu]	0.9580

winding resistance in [Ω] at ambient temperature 18.2 [°C]

phase	Ru-v:	Rv-w:	Rw-u:	averaged:	max. deviation [%]
stator	0.3026	0.3025	0.3022	0.3024	0.08
rotor	***	***	***	***	***

no load and short circuit (locked rotor)

item	[V]	[A]	[kW]	[Hz]	Iu [A]	Iv [A]	Iw [A]	deviation [%]
no load	6600.0	24.48	14.65	60.00	24.4	24.67	24.39	0.75
locked rotor	1439.8	80.66	21.01	60.00	***	***	***	***
rotor voltage	***	[V]		Direction of Rotation	C.C.W with U.V.W Connection	(Viewed from D.E.)		

vibration measurement

position	horizontal	vertical	axial	remark	stator (R/E)	*** / ***	[V]	***
DE	0.6	0.8	0.4	meas. Unit	rotor (R)	***	[Hz]	***
NDE	0.7	0.9	0.4	mm/s(rms)	de. bearing	***	[A]	***
noise level in dB(A) at 1 [m] distance from major frame								
averaged sound level (@)	remark							
***	***							

@ averaged value from 4 measured result (measured at front, rear, right, left side of machine)

Insulation resistance in [MΩ]

item	before test	after test	test voltage [V]	item	test voltage [V]	duration [s]
stator	47700	43100	2500	stator	AC 14200	60
Rotor	***	***	***	Rotor	*** ***	***
E.T.D.	1000	1000	500	E.T.D.	AC ***	***
heater	1000	1000	500	heater	AC 1500	60

over load and over speed

item	test value	duration [s]	Remark
over load	*** [%] of rated load(current)	***	***
over speed	*** [%] of rated speed	***	***

accessories and other data

space heater	1 phase	200 [W]	220 [V]	247.9 [Ω]
name of item	accessory type	Q'ty	check result	Remark
winding temperature	PT100	6	Good	***
bearing temperature	PT100	2	Good	***
air temperature	***	***	***	***
additional	***	***	***	***

***	Tested By
	 2022 11.9 OIBB ELECTRIC CO., LTD.
We hereby confirm that the specified test were carried out in accordance with applicable standard(s) and that the satisfactory test result were obtained.	



Determination of characteristics of 3 phase induction machine

PJT Name	삼성전자 천안 C4	Project no.	20222310RMH482
model no.	HLE6 403-46E	Serial no.	20222310RMH482003

basic rating

Output kW	750	poles	4	voltage [V]	6600
Frequency [Hz]	60.0	speed [rpm]	1790.0	current [A]	80.6
Service factor	1.15(F/F)	insulation	F	max. amb. [°C]	40

winding resistance in [Ω]

measured value at	18.2 [°C]	u-v:	0.3026	v-w:	0.3025	w-u:	0.3022
averaged phase resistance (refer to Y connection) [Ω]				at specified temperature 95.00 [°C]			

no load and short circuit (locked rotor) + actual load point for correction

item	[V]	[A]	[kW]	[Hz]	[°C]	line-line [Ω]	[rpm]
no load	6600.0	24.48	14.650	60.00	24.10	***	***
locked rotor	391.50	81.13	9.912	15.00	18.40	***	***
	750.90	81.67	13.460	30.00	18.70	***	***
	1439.80	80.66	21.010	60.00	19.10	***	***
	2595.90	161.84	87.700	60.00	20.10	***	***
	***	***	***	***	***	***	***
actual load	***	***	***	***	***	***	***

summary of constants

temperature constant	stator: 235.0	Rotor: 235.0
constant loss	Wh = 6.011 [kW]	Wf = 8.361 [kW]
stray load loss	Wll = 3.914 [kW]	at primary current I1 = 80.60 [A]
reactance ratio	X1/X2 = 0.6700	

f2 [Hz]	1.800	15.00	30.00	60.00	60.00	***
stator current [A]	***	81.13	81.67	80.66	161.84	***
V1 [V]	3810.5	3810.5	3810.5	3810.5	3810.5	***
r1 [ohms]	0.197083	0.197083	0.197083	0.197083	0.197083	***
r2 [ohms]	0.249734	0.497626	0.734964	1.295028	1.334706	***
rfe [ohms]	6829.09	6833.43	6849.84	6860.57	6900.76	***
X1 [ohms]	4.5610E+00	4.5129E+00	4.3312E+00	4.2125E+00	3.7687E+00	***
X2 [ohms]	6.8074E+00	6.7357E+00	6.4644E+00	6.2873E+00	5.6250E+00	***
bm [mhos]	6.6082E-03	6.6060E-03	6.5984E-03	6.5932E-03	6.5741E-03	***
gfe [mhos]	1.4643E-04	1.4634E-04	1.4599E-04	1.4576E-04	1.4491E-04	***
corrected constant from actual load point reading		Xm = ***		r2 = ***		

summary of load characteristics

load [pu]	0.25	0.50	0.75	1.00	1.25	2.75
current [A]	31.0	44.3	60.5	78.3	97.6	300.2
efficiency [pu]	0.9226	0.9552	0.9645	0.9674	0.9675	0.8863
power factor [pu]	0.5741	0.7749	0.8430	0.8658	0.8688	0.6776
slip [pu]	0.00120	0.00238	0.00361	0.00492	0.00636	0.06368
torque [kg.m]	101.6	203.5	305.6	408	510.7	1191.5

locked rotor and break down characteristics

locked rotor current [A]	487	break down torque [pu]	2.920
locked rotor torque [pu]	0.957	***	***





Segregation of no load loss

PJT Name	삼성전자 천안 C4	Project no.	20222310RMH482
model no.	HLE6 403-46E	Serial no.	20222310RMH482003

basic rating

Output [kW]	750	poles	4	voltage [V]	6600
Frequency [Hz]	60.0	speed [rpm]	1790.0	current [A]	80.6
Service factor	1.15(F/F)	insulation	F	max. amb. [°C]	40

winding resistance in [Ω]

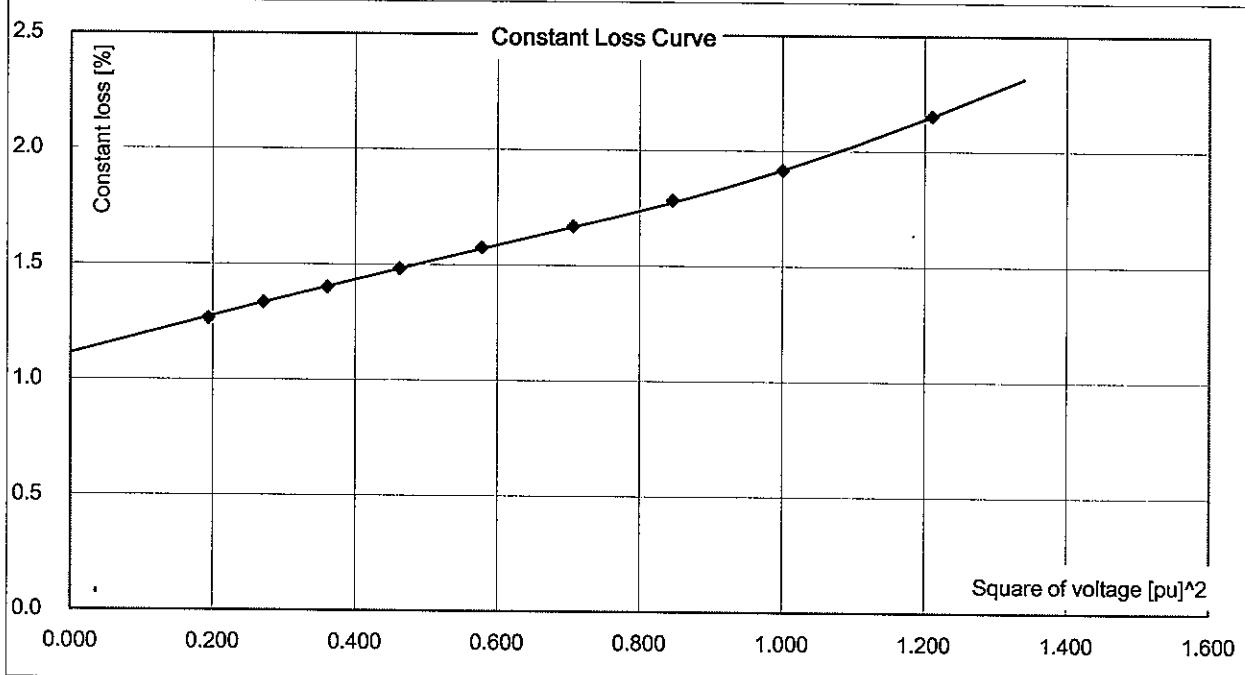
measured value at	18.20	[°C]	u-v:	0.3026	v-w:	0.3025	w-u:	0.3022
averaged phase resistance (refer to Y connection)								0.151217 [Ω]

no load reading

[V]	[A]	[kW]	[Hz]	[rpm]	[°C]	line-line [Ω]
7262.00	30.90	16.590	60.00	***	24.10	***
6600.00	24.48	14.650	60.00	***	24.10	***
6071.00	21.34	13.590	60.00	***	24.10	***
5545.00	19.03	12.690	60.00	***	24.10	***
5018.00	17.03	11.960	60.00	***	24.10	***
4487.00	15.02	11.230	60.00	***	24.10	***
3962.00	13.18	10.600	60.00	***	24.10	***
3433.00	11.40	10.080	60.00	***	24.10	***
2904.00	9.70	9.540	60.00	***	24.10	***
***	***	***	***	***	***	***

calculation and measured result

no load core loss	[kW]	6.010
friction and windage loss	[kW]	8.361
no load current	[A]	24.50





Test Report of 3 Phase Induction Machine

PJT Name	상성전자 천안 C4	Project no.	20222310RMH482
model no.	HLE6 403-46E	Serial no.	20222310RMH482004
Item no.	***	shaft no.	2RMH482-4

general rating

Output kW	750	poles	4	voltage [V]	6600
Frequency [Hz]	60.0	speed [rpm]	1790.0	current [A]	80.6
Service factor	1.15(F/F)	insulation	F	max. amb. [°C]	40
time rating	S1	enclose	TEFC - IP55	weight [Kg]	4400
DE. bearing:	6324C3	NDE. bearing:	6324C3	efficiency [pu]	0.9580

winding resistance in [Ω] at ambient temperature 18.2 [°C]

phase	Ru-v:	Rv-w:	Rw-u:	averaged:	max. deviation [%]
stator	0.3026	0.3025	0.3022	0.3024	0.08
rotor	***	***	***	***	***

no load and short circuit(locked rotor)

item	[V]	[A]	[kW]	[Hz]	Iu [A]	Iv [A]	Iw [A]	deviation [%]
no load	6600.0	24.78	14.64	60.00	24.67	24.97	24.7	0.77
locked rotor	1447.3	80.91	21.47	60.00	***	***	***	***
rotor voltage	***	[V]	Direction of Rotation	C.C.W with U.V.W Connection	(Viewed from D.E.)			

vibration measurement

position	horizontal	vertical	axial	remark	stator (R/E)	*** / ***	[V]	***
DE	0.5	0.4	0.3	meas. Unit	rotor (R)	***	[Hz]	***
NDE	0.4	0.2	0.3	mm/s(rms)	de. bearing	***	[A]	***
noise level in dB(A) at 1 [m] distance from major frame								
averaged sound level (@)		remark			nde bearing	***	[kW]	***
***	***				slip ring	***	[Nm]	***
					***	***	[rpm]	***

@ averaged value from 4 measured result (measured at front, rear, right, left side of machine)

insulation resistance in [MΩ]

item	before test	after test	test voltage [V]	item	test voltage [V]	duration [s]
stator	41900	40600	2500	stator	AC 14200	60
Rotor	***	***	***	Rotor	*** ***	***
E.T.D.	1000	1000	500	E.T.D.	AC ***	***
heater	1000	1000	500	heater	AC 1500	60

over load and over speed

item	test value	duration [s]	Remark
over load	*** [%] of rated load(current)	***	***
over speed	*** [%] of rated speed	***	***

accessories and other data

space heater	1 phase	200 [W]	220 [V]	247.8 [Ω]
name of item	accessory type	Q'ty	check result	Remark
winding temperature	PT100	6	Good	***
bearing temperature	PT100	2	Good	***
air temperature	***	***	***	***
additional	***	***	***	***

Tested By



We hereby confirm that the specified test were carried out in accordance with applicable standard(s) and that the satisfactory test result were obtained.



Determination of characteristics of 3 phase induction machine

PJT Name	삼성전자 천안 C4	Project no.	20222310RMH482
model no.	HLE6 403-46E	Serial no.	20222310RMH482004

basic rating

Output kW	750	poles	4	voltage [V]	6600
Frequency [Hz]	60.0	speed [rpm]	1790.0	current [A]	80.6
Service factor	1.15(F/F)	insulation	F	max. amb. [°C]	40

winding resistance in [Ω]

measured value at	18.2	[°C]	u-v:	0.3026	v-w:	0.3025	w-u:	0.3022
averaged phase resistance (refer to Y connection) [Ω]	0.197083		at specified temperature	95.00	[°C]			

no load and short circuit (locked rotor) + actual load point for correction

item	[V]	[A]	[kW]	[Hz]	[°C]	line-line [Ω]	[rpm]
no load	6600.0	24.78	14.640	60.00	23.80	***	***
	389.90	80.65	9.864	15.00	18.30	***	***
locked rotor	745.10	80.76	13.360	30.00	18.60	***	***
	1447.30	80.91	21.470	60.00	19.30	***	***
	2607.40	162.09	89.100	60.00	20.10	***	***
	***	***	***	***	***	***	***
actual load	***	***	***	***	***	***	***

summary of constants

temperature constant	stator: 235.0	Rotor: 235.0
constant loss	Wh = 6.136 [kW]	Wf = 8.219 [kW]
stray load loss	Wll = 3.914 [kW]	at primary current I1 = 80.60 [A]
reactance ratio	X1/X2 = 0.6700	

f2 [Hz]	1.200	15.00	30.00	60.00	60.00	***
stator current [A]	***	80.65	80.76	80.91	162.09	***
V1 [V]	3810.5	3810.5	3810.5	3810.5	3810.5	***
r1 [ohms]	0.197083	0.197083	0.197083	0.197083	0.197083	***
r2 [ohms]	0.241323	0.503551	0.750629	1.318849	1.355995	***
rfe [ohms]	6683.06	6687.96	6703.64	6714.83	6754.51	***
X1 [ohms]	4.5770E+00	4.5222E+00	4.3470E+00	4.2222E+00	3.7803E+00	***
X2 [ohms]	6.8314E+00	6.7495E+00	6.4881E+00	6.3018E+00	5.6422E+00	***
bm [mhos]	6.6926E-03	6.6903E-03	6.6825E-03	6.6770E-03	6.6574E-03	***
gfe [mhos]	1.4963E-04	1.4952E-04	1.4917E-04	1.4892E-04	1.4805E-04	***
corrected constant from actual load point reading		Xm = ***		r2 = ***		

summary of load characteristics

load [pu]	0.25	0.50	0.75	1.00	1.25	2.74
current [A]	31.2	44.5	60.7	78.5	97.8	299.5
efficiency [pu]	0.9226	0.9553	0.9646	0.9676	0.9677	0.8864
power factor [pu]	0.5696	0.7714	0.8405	0.8638	0.8670	0.6770
slip [pu]	0.00116	0.00230	0.00349	0.00476	0.00615	0.06362
torque [kg.m]	101.6	203.5	305.6	407.9	510.6	1187.6

locked rotor and break down characteristics

locked rotor current [A]	485	break down torque [pu]	2.911
locked rotor torque [pu]	0.957	***	***





Segregation of no load loss

PJT Name	삼성전자 천안 C4	Project no.	20222310RMH482
model no.	HLE6 403-46E	Serial no.	20222310RMH482004

basic rating

Output kW	750	poles	4	voltage [V]	6600
Frequency [Hz]	60.0	speed [rpm]	1790.0	current [A]	80.6
Service factor	1.15(F/F)	insulation	F	max. amb. [°C]	40

winding resistance in [Ω]

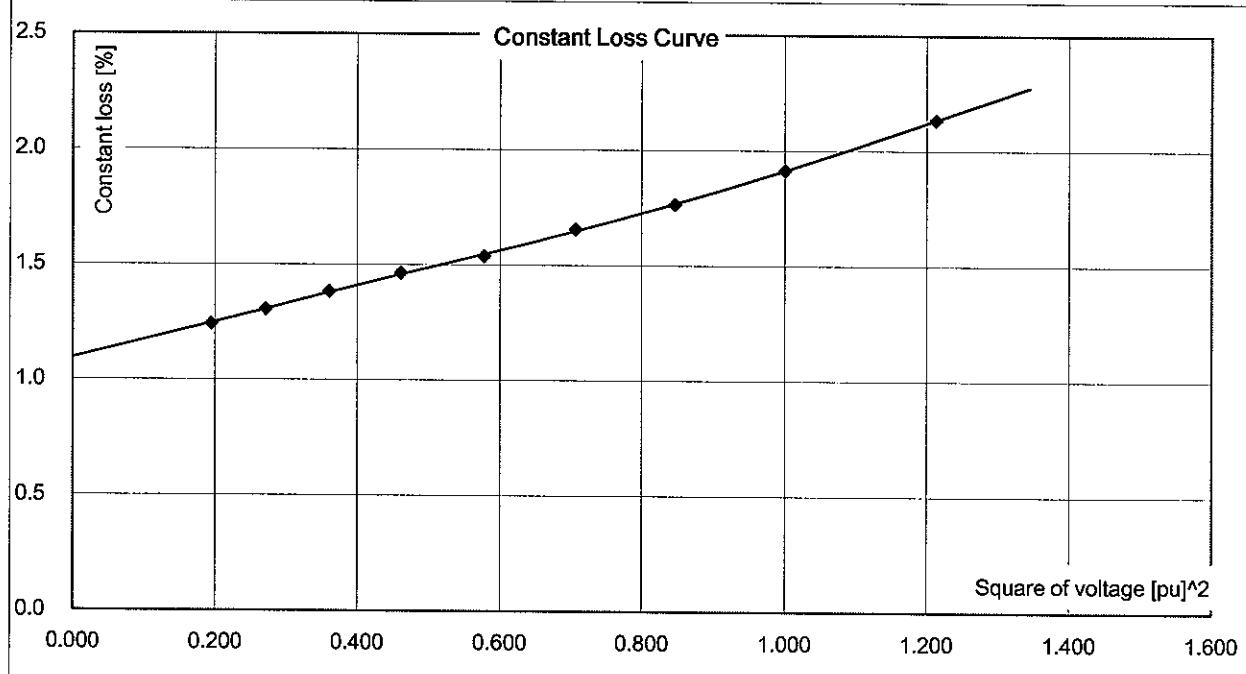
measured value at	18.20	[°C]	u-v:	0.3026	v-w:	0.3025	w-u:	0.3022
averaged phase resistance (refer to Y connection)								0.151217 [Ω]

no load reading

[V]	[A]	[kW]	[Hz]	[rpm]	[°C]	line-line [Ω]
7269.00	31.10	16.450	60.00	***	23.80	***
6600.00	24.78	14.640	60.00	***	23.80	***
6072.00	21.48	13.460	60.00	***	23.80	***
5546.00	19.25	12.600	60.00	***	23.80	***
5017.00	17.27	11.680	60.00	***	23.80	***
4482.00	15.20	11.100	60.00	***	23.80	***
3958.00	13.30	10.460	60.00	***	23.80	***
3433.00	11.53	9.860	60.00	***	23.80	***
2908.00	9.81	9.360	60.00	***	23.80	***
***	***	***	***	***	***	***

calculation and measured result

no load core loss	[kW]	6.136
friction and windage loss	[kW]	8.219
no load current	[A]	24.80





Test Report of 3 Phase Induction Machine

PJT Name	삼성전자 현안 C4	Project no.	20222310RMH482
model no.	HLE6 403-46E	Serial no.	20222310RMH482005
Item no.	***	shaft no.	2RMH482-5

general rating

Output kW	750	poles	4	voltage [V]	6600
Frequency [Hz]	60.0	speed [rpm]	1790.0	current [A]	80.6
Service factor	1.15(F/F)	insulation	F	max. amb. [°C]	40
time rating	S1	enclose	TEFC - IP55	weight [Kg]	4400
DE. bearing:	6324C3	NDE. bearing:	6324C3	efficiency [pu]	0.9580

winding resistance in [Ω] at ambient temperature 18.4 [°C]

phase	Ru-v:	Rv-w:	Rw-u:	averaged:	max. deviation [%]
stator	0.3025	0.3024	0.3021	0.3023	0.08
rotor	***	***	***	***	***

no load and short circuit(locked rotor)
current unbalance

item	[V]	[A]	[kW]	[Hz]	Iu [A]	Iv [A]	Iw [A]	deviation [%]
no load	6600.0	24.77	14.21	60.00	24.65	24.94	24.72	0.69
locked rotor	1454.6	81.52	21.56	60.00	***	***	***	***
rotor voltage	***	[V]	Direction of Rotation	C.C.W with U.V.W Connection	(Viewed from D.E.)			

vibration measurement

position	horizontal	vertical	axial	remark
DE	0.4	1.0	0.5	meas. Unit
NDE	0.8	0.5	0.4	mm/s(rms)

noise level in dB(A) at 1 [m] distance from major frame

averaged sound level (@)	remark
***	***

temperature rise in [K]

stator (R/E)	*** / ***	[V]	***
rotor (R)	***	[Hz]	***
de. bearing	***	[A]	***
nde bearing	***	[kW]	***
slip ring	***	[Nm]	***
***	***	[rpm]	***

@ averaged value from 4 measured result (measured at front, rear, right, left side of machine)

insulation resistance in [MΩ]

item	before test	after test	test voltage [V]
stator	47500	46200	2500
Rotor	***	***	***
E.T.D.	1000	1000	500
heater	1000	1000	500

high voltage test

item	test voltage [V]	duration [s]
stator	AC 14200	60
Rotor	*** ***	***
E.T.D.	AC ***	***
heater	AC 1500	60

over load and over speed

item	test value	duration [s]	Remark
over load	*** [%] of rated load(current)	***	***
over speed	*** [%] of rated speed	***	***

accessories and other data

space heater	1 phase	200 [W]	220 [V]	246.4 [Ω]
name of item	accessory type	Q'ty	check result	Remark
winding temperature	PT100	6	Good	***
bearing temperature	PT100	2	Good	***
air temperature	***	***	***	***
additional	***	***	***	***

***	Tested By
 HYUNDAI T-1068 2022.11.19 ELECTRIC	
We hereby confirm that the specified test were carried out in accordance with applicable standard(s) and that the satisfactory test result were obtained.	



Determination of characteristics of 3 phase induction machine

PJT Name	삼성전자 천안 C4	Project no.	20222310RMH482
model no.	HLE6 403-46E	Serial no.	20222310RMH482005

basic rating

Output kW	750	poles	4	voltage [V]	6600
Frequency [Hz]	60.0	speed [rpm]	1790.0	current [A]	80.6
Service factor	1.15(F/F)	insulation	F	max. amb. [°C]	40

winding resistance in [Ω]

measured value at	18.4 [°C]	u-v:	0.3025	v-w:	0.3024	w-u:	0.3021
averaged phase resistance (refer to Y connection) [Ω]				at specified temperature 95.00 [°C]			

no load and short circuit(locked rotor) + actual load point for correction

item	[V]	[A]	[kW]	[Hz]	[°C]	line-line [Ω]	[rpm]
no load	6600.0	24.77	14.210	60.00	24.50	***	***
locked rotor	390.24	80.77	9.854	15.00	18.60	***	***
	742.50	80.53	13.140	30.00	19.00	***	***
	1454.60	81.52	21.560	60.00	19.70	***	***
	2608.60	162.58	88.900	60.00	20.50	***	***
	***	***	***	***	***	***	***
actual load	***	***	***	***	***	***	***

summary of constants

temperature constant	stator: 235.0	Rotor: 235.0
constant loss	Wh = 6.055 [kW]	Wf = 7.870 [kW]
stray load loss	Wll = 3.914 [kW]	at primary current I1 = 80.60 [A]
reactance ratio	X1/X2 = 0.6700	

f2 [Hz]	1.200	15.00	30.00	60.00	60.00	***
stator current [A]	***	80.77	80.53	81.52	162.58	***
V1 [V]	3810.5	3810.5	3810.5	3810.5	3810.5	***
r1 [ohms]	0.196863	0.196863	0.196863	0.196863	0.196863	***
r2 [ohms]	0.241001	0.500052	0.738857	1.299939	1.340637	***
rfe [ohms]	6772.7	6778.02	6793.88	6805.96	6846.09	***
X1 [ohms]	4.5785E+00	4.5198E+00	4.3449E+00	4.2118E+00	3.7707E+00	***
X2 [ohms]	6.8336E+00	6.7460E+00	6.4849E+00	6.2863E+00	5.6280E+00	***
brm [mhos]	6.6904E-03	6.6880E-03	6.6802E-03	6.6743E-03	6.6548E-03	***
gfe [mhos]	1.4765E-04	1.4754E-04	1.4719E-04	1.4693E-04	1.4607E-04	***
corrected constant from actual load point reading		Xm = ***		r2 = ***		

summary of load characteristics

load [pu]	0.25	0.50	0.75	1.00	1.25	2.74
current [A]	31.2	44.5	60.7	78.5	97.7	300.2
efficiency [pu]	0.9246	0.9564	0.9654	0.9681	0.9681	0.8859
power factor [pu]	0.5689	0.7712	0.8404	0.8637	0.8670	0.6771
slip [pu]	0.00116	0.00230	0.00349	0.00475	0.00614	0.06425
torque [kg.m]	101.6	203.5	305.6	407.9	510.6	1190.7

locked rotor and break down characteristics

locked rotor current [A]	487	break down torque [pu]	2.919
locked rotor torque [pu]	0.960	***	***





Segregation of no load loss

PJT Name	삼성전자 천안 C4	Project no.	20222310RMH482
model no.	HLE6 403-46E	Serial no.	20222310RMH482005

basic rating

Output kW	750	poles	4	voltage [V]	6600
Frequency [Hz]	60.0	speed [rpm]	1790.0	current [A]	80.6
Service factor	1.15(F/F)	insulation	F	max. amb. [°C]	40

winding resistance in [Ω]

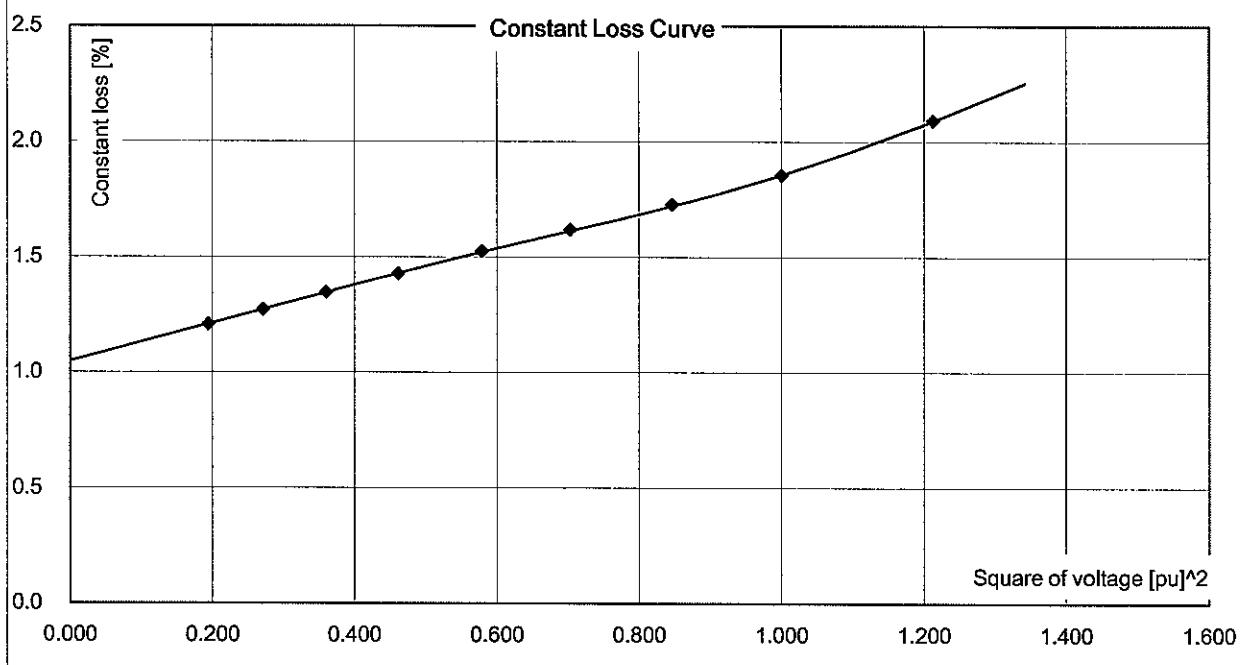
measured value at	18.40	[°C]	u-v:	0.3025	v-w:	0.3024	w-u:	0.3021
averaged phase resistance (refer to Y connection)			0.151167	[Ω]				

no load reading

[V]	[A]	[kW]	[Hz]	[rpm]	[°C]	line-line [Ω]
7267.00	31.44	16.140	60.00	***	24.50	***
6600.00	24.77	14.210	60.00	***	24.50	***
6072.00	21.56	13.190	60.00	***	24.50	***
5532.00	19.23	12.320	60.00	***	24.50	***
5020.00	17.20	11.580	60.00	***	24.50	***
4484.00	15.28	10.830	60.00	***	24.50	***
3960.00	13.49	10.200	60.00	***	24.50	***
3433.00	11.50	9.610	60.00	***	24.50	***
2905.00	9.81	9.100	60.00	***	24.50	***
***	***	***	***	***	***	***

calculation and measured result

no load core loss	[kW]	6.055
friction and windage loss	[kW]	7.870
no load current	[A]	24.80





Test Report of 3 Phase Induction Machine

PJT Name	삼성전자 천안 C4	Project no.	20222310RMH482
model no.	HLE6 403-46E	Serial no.	20222310RMH482006
Item no.	***	shaft no.	2RMH482-6

general rating

Output [kW]	750	poles	4	voltage [V]	6600
Frequency [Hz]	60.0	speed [rpm]	1790.0	current [A]	80.6
Service factor	1.15(F/F)	insulation	F	max. amb. [°C]	40
time rating	S1	enclose	TEFC - IP55	weight [Kg]	4400
DE. bearing:	6324C3	NDE. bearing:	6324C3	efficiency [pu]	0.9580

winding resistance in [Ω] at ambient temperature 18.9 [°C]

phase	Ru-v:	Rv-w:	Rw-u:	averaged:	max. deviation [%]
stator	0.3037	0.3037	0.3034	0.3036	0.07
rotor	***	***	***	***	***

no load and short circuit (locked rotor)
current unbalance

item	[V]	[A]	[kW]	[Hz]	Iu [A]	Iv [A]	Iw [A]	deviation [%]
no load	6600.0	25.04	14.81	60.00	24.97	25.18	24.96	0.57
locked rotor	1443.3	80.65	21.31	60.00	***	***	***	***
rotor voltage	***	[V]	Direction of Rotation	C.C.W with U.V.W Connection	(Viewed from D.E.)			

vibration measurement

position	horizontal	vertical	axial	remark	stator (R/E)	*** / ***	[V]	***
DE	0.6	0.5	0.3	meas. Unit	rotor (R)	***	[Hz]	***
NDE	0.4	0.3	0.3	mm/s(rms)	de. bearing	***	[A]	***
noise level in dB(A) at 1 [m] distance from major frame								
averaged sound level (@)		remark		ndc bearing				
***	***	***	***	slip ring	***	[Nm]	***	***

@ averaged value from 4 measured result (measured at front, rear, right, left side of machine)

insulation resistance in [MΩ]

item	before test	after test	test voltage [V]
stator	46100	46800	2500
Rotor	***	***	***
E.T.D.	1000	1000	500
heater	1000	1000	500

high voltage test

item	test voltage [V]	duration [s]
stator	AC 14200	60
Rotor	*** ***	***
E.T.D.	AC ***	***
heater	AC 1500	60

over load and over speed

item	test value	duration [s]	Remark
over load	*** [%] of rated load(current)	***	***
over speed	*** [%] of rated speed	***	***

accessories and other data

space heater	1 phase	200 [W]	220 [V]	246.9 [Ω]
name of item	accessory type	Q'ty	check result	Remark
winding temperature	PT100	6	Good	***
bearing temperature	PT100	2	Good	***
air temperature	***	***	***	***
additional	***	***	***	***

***	Tested By
	 T-1065 2022.11.19 0168 ELECTRIC CO., LTD.
We hereby confirm that the specified test were carried out in accordance with applicable standard(s) and that the satisfactory test result were obtained.	



Determination of characteristics of 3 phase induction machine

PJT Name	삼성전자 천안 C4	Project no.	20222310RMH482
model no.	HLE6 403-46E	Serial no.	20222310RMH482006

basic rating

Output kW	750	poles	4	voltage [V]	6600
Frequency [Hz]	60.0	speed [rpm]	1790.0	current [A]	80.6
Service factor	1.15(F/F)	insulation	F	max. amb. [°C]	40

winding resistance in [Ω]

measured value at	18.9	[°C]	u-v:	0.3037	v-w:	0.3037	w-u:	0.3034
averaged phase resistance (refer to Y connection) [Ω]	0.197298				at specified temperature	95.00	[°C]	

no load and short circuit(locked rotor) + actual load point for correction

item	[V]	[A]	[kW]	[Hz]	[°C]	line-line [Ω]	[rpm]
no load	6600.0	25.04	14.810	60.00	25.00	***	***
locked rotor	392.40	81.26	9.996	15.00	19.10	***	***
	746.50	80.97	13.400	30.00	19.50	***	***
	1443.30	80.65	21.310	60.00	20.10	***	***
	2593.70	161.26	87.800	60.00	21.20	***	***
	***	***	***	***	***	***	***
actual load	***	***	***	***	***	***	***

summary of constants

temperature constant	stator: 235.0	Rotor: 235.0
constant loss	Wh = 6.416 [kW]	Wf = 8.102 [kW]
stray load loss	Wll = 3.914 [kW]	at primary current I1 = 80.60 [A]
reactance ratio	X1/X2 = 0.6700	

f2 [Hz]	1.800	15.00	30.00	60.00	60.00	***
stator current [A]	***	81.26	80.97	80.65	161.26	***
V1 [V]	3810.5	3810.5	3810.5	3810.5	3810.5	***
r1 [ohms]	0.197298	0.197298	0.197298	0.197298	0.197298	***
r2 [ohms]	0.249087	0.500184	0.745409	1.313075	1.342887	***
rfe [ohms]	6388.84	6393.06	6408.03	6418.41	6456.96	***
X1 [ohms]	4.5671E+00	4.5182E+00	4.3451E+00	4.2253E+00	3.7809E+00	***
X2 [ohms]	6.8165E+00	6.7437E+00	6.4852E+00	6.3064E+00	5.6432E+00	***
bm [mhos]	6.7645E-03	6.7624E-03	6.7546E-03	6.7491E-03	6.7291E-03	***
gfe [mhos]	1.5652E-04	1.5642E-04	1.5605E-04	1.5580E-04	1.5487E-04	***
corrected constant from actual load point reading		Xm = ***		r2 = ***		

summary of load characteristics

load [pu]	0.25	0.50	0.75	1.00	1.25	2.75
current [A]	31.4	44.7	60.8	78.6	97.9	300.5
efficiency [pu]	0.9218	0.9548	0.9642	0.9672	0.9673	0.8879
power factor [pu]	0.5661	0.7688	0.8388	0.8626	0.8661	0.6768
slip [pu]	0.00120	0.00238	0.00361	0.00492	0.00635	0.06188
torque [kg.m]	101.6	203.5	305.6	408	510.7	1191.3

locked rotor and break down characteristics

locked rotor current [A]	486	break down torque [pu]	2.920
locked rotor torque [pu]	0.950	***	***





Segregation of no load loss

PJT Name	삼성전자 천안 C4	Project no.	20222310RMH482
model no.	HLE6 403-46E	Serial no.	20222310RMH482006

basic rating

Output kW	750	poles	4	voltage [V]	6600
Frequency [Hz]	60.0	speed [rpm]	1790.0	current [A]	80.6
Service factor	1.15(F/F)	insulation	F	max. amb. [°C]	40

winding resistance in [Ω]

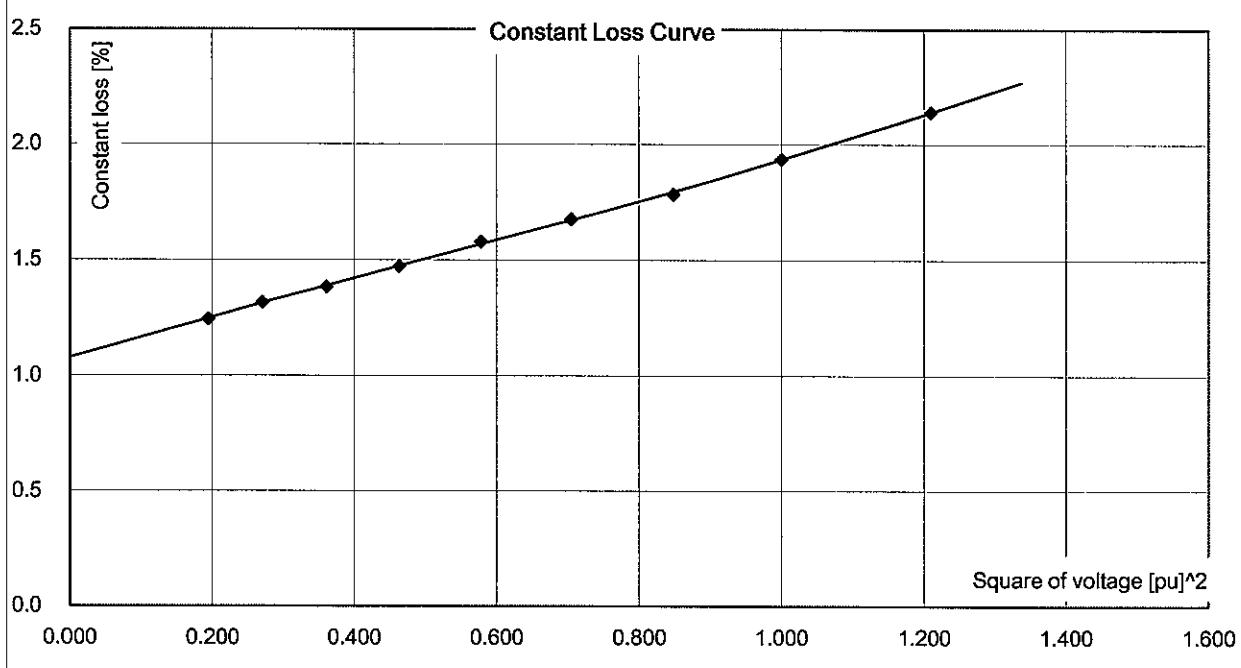
measured value at	18.90	[°C]	u-v:	0.3037	v-w:	0.3037	w-u:	0.3034
averaged phase resistance (refer to Y connection)		0.151800	[Ω]					

no load reading

[V]	[A]	[kW]	[Hz]	[rpm]	[°C]	line-line [Ω]
7259.00	31.49	16.510	60.00	***	25.00	***
6600.00	25.04	14.810	60.00	***	25.00	***
6076.00	21.89	13.600	60.00	***	25.00	***
5541.00	19.36	12.750	60.00	***	25.00	***
5018.00	17.36	11.980	60.00	***	25.00	***
4489.00	15.44	11.160	60.00	***	25.00	***
3965.00	13.49	10.470	60.00	***	25.00	***
3432.00	11.62	9.940	60.00	***	25.00	***
2906.00	9.95	9.390	60.00	***	25.00	***
***	***	***	***	***	***	***

calculation and measured result

no load core loss	[kW]	6.415
friction and windage loss	[kW]	8.102
no load current	[A]	25.00

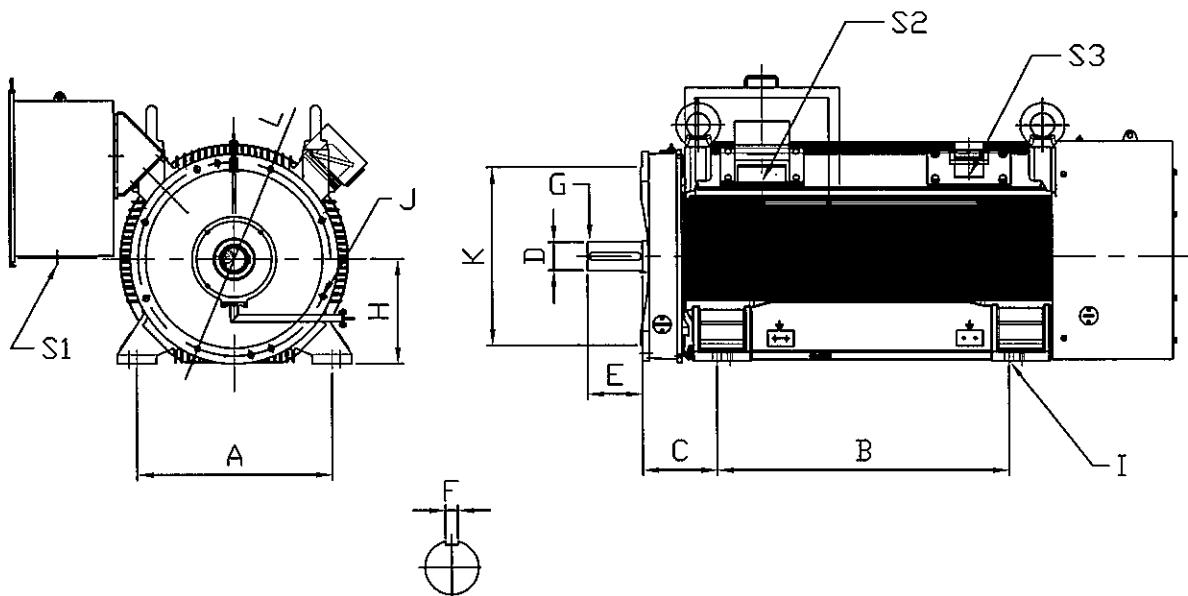


Measuring Equipment List of Motor Test(M10M)

NO.	Name	Serial No.	Calibration Date	Recalibration Date	Remarks
1	Mega ohm tester (1V~5000V)	101154582	2022.09.30	2023.09.30	MEGGER
2	Temperature recorder	S5P609025	2022.09.16	2023.09.16	YOKOGAWA
3	Resistance ohm meter	MY42006197	2022.05.23	2023.05.23	AGILENT
4	Sound level meter	00453846	2022.05.15	2023.05.15	RION
5	Vibration meter	08970254	2021.12.10	2022.12.10	RION
6	Digital Power Meter	91LA00071	2022.06.17	2023.06.17	YOKOGAWA
7	High voltage tester	9843-9	2022.05.04	2023.05.04	SIEMENS
8	Digital multi-meter	23700002	2022.05.16	2023.05.16	FLUKE
9	AC-Voltage Meter	89AE0575	2022.03.15	2023.03.15	YOKOGAWA
10	AC-Ampere Meter	73AE1163	2021.12.10	2022.12.10	YOKOGAWA
11	Mega ohm tester (500V/1000MQ)	JKWB062	2022.07.08	2023.07.08	YOKOGAWA
12	TACHO METER(RPM)	L381462	2022.04.14	2023.04.14	LUTRON



	INSPECTION REPORT 검사 성적서			CHECKED BY : 검 토 자
PROJ. NO. 수주번호	20222310RMH482	SPEC 용량, 형식	750kW, 4P, 6600V	INSP. DATE 검사 일
PROJ.NAME 수 주 명	삼성전자 천안C4	DWG. NO. 도면번호	HM-101711/R.3	INSPECTOR 검사자
		Q'TY 수량	1SET	SERIAL NO. 일련번호

FINAL CHECK SHEET(D)


*.CHECK POINT "G" SHAFT RUN-OUT

CHECK DEVICE : V-CALIPERS, MICROMETER, DEPTH GAUGE

PART \ MK	A	B	C	D	E	F	G	H	I	J
SPEC	± 1.5 750	± 2.5 1120	± 1.0 285	± 0.035 ± 0.013 $\phi 110$	± 0.5 210	-0.022 -0.074 28	max. 0.070	-1.0 400	4- $\phi 35$ 8- $\phi 23$	
CHECK	+0.1	+0.1	+0	+0.020	+0.1	-0.060	0.010	-0.14	4- $\phi 35$ 8- $\phi 23$	

PART \ MK	K	L	S1	S2	S3					
SPEC	-1.0 $\phi 680$	± 0.8 $\phi 740$	1- $\phi 90$	2-M25XP1.5	1-M25XP1.5					
CHECK	-0.03	+0.1	1- $\phi 90$	2-M25XP1.5	1-M25XP1.5					

NOTE(특기)

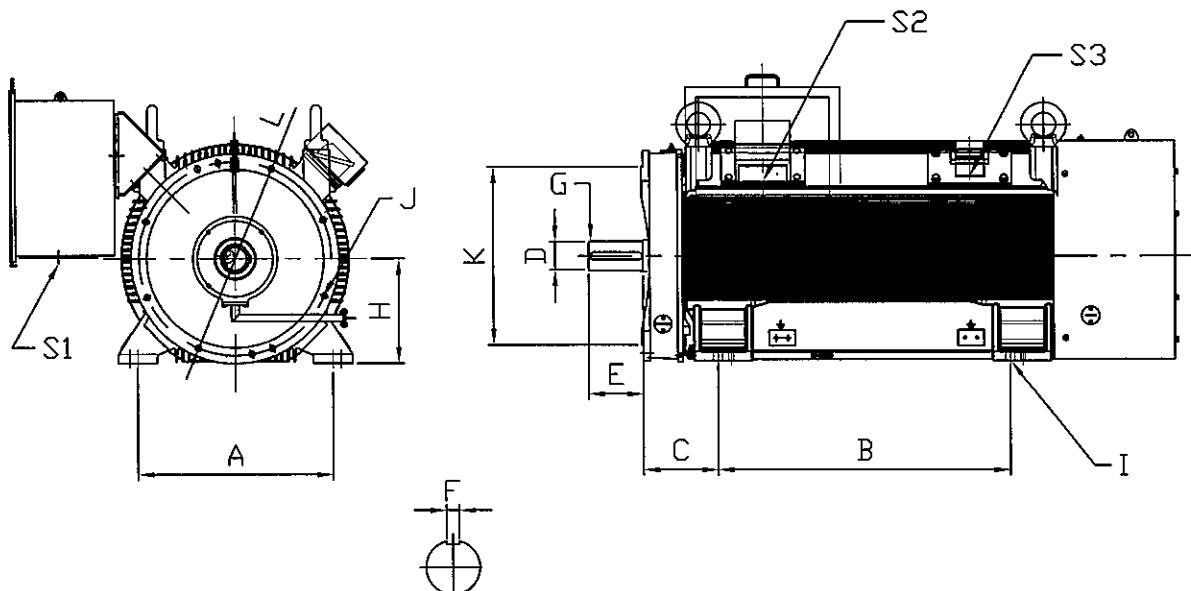
VISUAL INSPECTION : AC

AC : ACCEPT (양호)	RJ : REJECT (불량)	NA : NOT APPLICATION (해당없음)	FINAL INSPECTION 최종판정
			ACCEPT A4(210mm x 297mm)



	INSPECTION REPORT 검사 성적서			CHECKED BY : 검 토 자
PROJ. NO. 수주번호	20222310RMH482	SPEC 용량, 형식	750kW, 4P, 6600V	INSP. DATE 검사 일
PROJ.NAME 수 주 명	삼성전자 천안C4	DWG. NO. 도면번호	HM-101711/R.3	INSPECTOR 검사자
		Q'TY 수량	1SET	SERIAL NO. 일련번호

FINAL CHECK SHEET(D)



*.CHECK POINT "G" SHAFT RUN-OUT

CHECK DEVICE : V-CALIPERS, MICROMETER, DEPTH GAUGE

PART \ MK	A	B	C	D	E	F	G	H	I	J
SPEC	± 1.5 750	± 2.5 1120	± 1.0 285	± 0.035 $\phi 110$	± 0.5 210	-0.022 28	max. 0.070	$^0_{-1.0}$ 400	$4-\phi 35$ $8-\phi 23$	
CHECK	$+0.1$	$+0.1$	$+0.3$	$+0.03$	$+0$	-0.060	0.010	-0.4	$4-\phi 35$ $8-\phi 23$	

PART \ MK	K	L	S1	S2	S3				
SPEC	$^0_{-1.0}$ $\phi 680$	± 0.8 $\phi 740$	$1-\phi 90$	$2-M25XP1.5$	$1-M25XP1.5$				
CHECK	-0.014	$+0.1$	$1-\phi 90$	$2-M25XP1.5$	$1-M25XP1.5$				

NOTE(특기)

VISUAL INSPECTION : AC

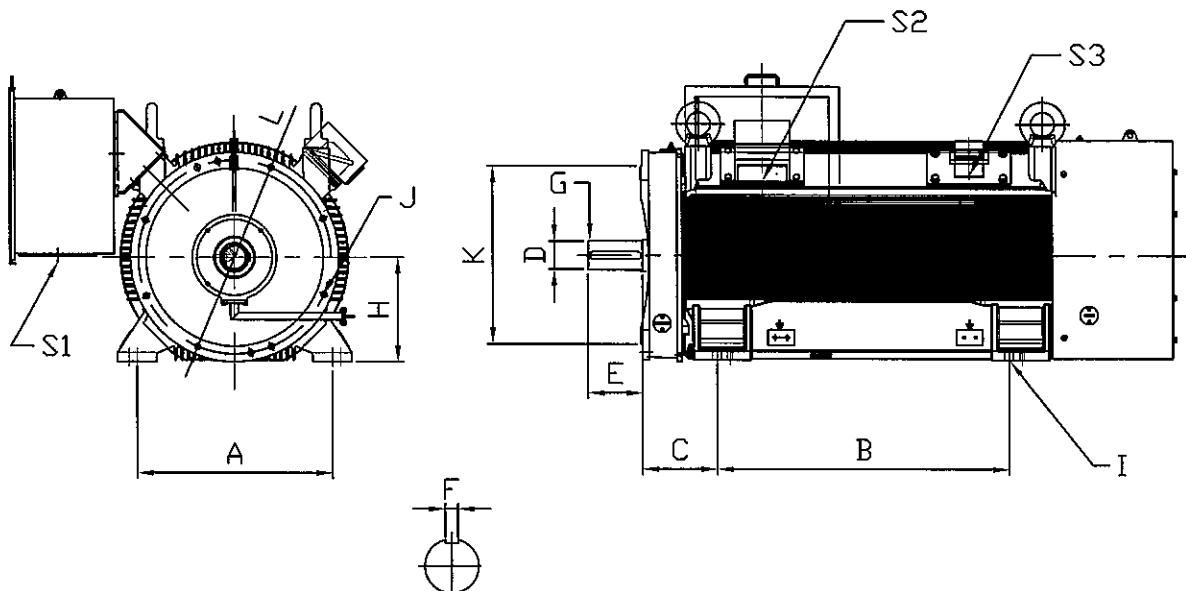
AC : ACCEPT (양호)	RJ : REJECT (불량)	NA : NOT APPLICATION (해당없음)	FINAL INSPECTION 최종 판정
ACCEPT			ACCEPT

A4(210mm x 297mm)



	INSPECTION REPORT 검사 성적서			CHECKED BY : 검 토 자
PROJ. NO. 수주번호	20222310RMH482	SPEC 용량,형식	750kW,4P,6600V	INSP. DATE 검 사 일
PROJ.NAME 수 주 명	삼성전자 천안C4	DWG. NO. 도면번호	HM-101711/R.3	INSPECTOR 검 사 자
		Q'TY 수 량	1SET	SERIAL NO. 일련번호
				20222310RMH482003

FINAL CHECK SHEET(D)



*.CHECK POINT "G" SHAFT RUN-OUT

CHECK DEVICE : V-CALIPERS, MICROMETER, DEPTH GAUGE

PART \ MK	A	B	C	D	E	F	G	H	I	J
SPEC	± 1.5 750	± 2.5 1120	± 1.0 285	± 0.015 $\phi 110$	± 0.5 210	± 0.024 28	max. 0.070	-0.0 400	4- $\phi 35$ 8- $\phi 23$	
CHECK	$+0.1$	$+0.1$	-0.2	$+0.026$	$+0.1$	-0.060	0.010	-0.5	4- $\phi 35$ 8- $\phi 23$	

PART \ MK	K	L	S1	S2	S3					
SPEC	$\frac{0}{-1.0}$ $\phi 680$	± 0.8 $\phi 740$	1- $\phi 90$	2-M25XP1.5	1-M25XP1.5					
CHECK	-0.04	$+0.1$	1- $\phi 90$	2-M25XP1.5	1-M25XP1.5					

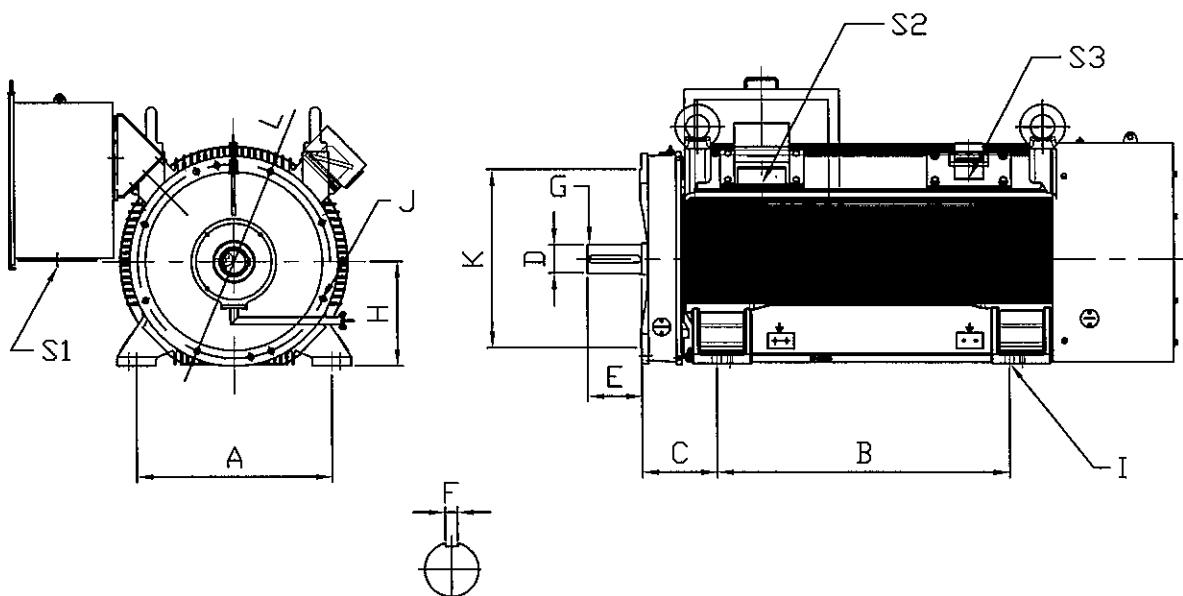
NOTE(특기)

VISUAL INSPECTION : AC

AC : ACCEPT (양호)	RJ : REJECT (불량)	NA : NOT APPLICATION (해당없음)	FINAL INSPECTION 최 종 판 정
			 A4(210mm x 297mm)



	INSPECTION REPORT 검사 성적서			CHECKED BY : 검 토 자
PROJ. NO. 수주번호	20222310RMH482	SPEC 용량, 형식	750kW, 4P, 6600V	INSP. DATE 검사 일
PROJ.NAME 수 주 명	삼성전자 천안C4	DWG. NO. 도면번호	HM-101711/R.3	INSPECTOR 검사자
		Q'TY 수량	1SET	SERIAL NO. 일련번호

FINAL CHECK SHEET(D)

*.CHECK POINT "G" SHAFT RUN-OUT

CHECK DEVICE : V-CALIPERS, MICROMETER, DEPTH GAUGE

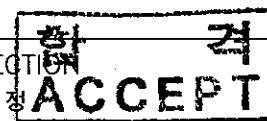
PART \ MK	A	B	C	D	E	F	G	H	I	J
SPEC	± 1.5 750	± 2.5 1120	± 1.0 285	± 0.35 $\phi 110$	± 0.5 210	-0.022 28	max. 0.070	$^0_{-1.0}$ 400	4- $\phi 35$ 8- $\phi 23$	
CHECK	$+0.2$	$+0.2$	± 0	$+0.028$	± 0	-0.060	0.020	-0.3	4- $\phi 35$ 8- $\phi 23$	

PART \ MK	K	L	S1	S2	S3					
SPEC	$^0_{-1.0}$ $\phi 680$	± 0.8 $\phi 740$	1- $\phi 90$	2-M25XP1.5	1-M25XP1.5					
CHECK	-0.04	$+0.1$	1- $\phi 90$	2-M25XP1.5	1-M25XP1.5					

NOTE(특기)

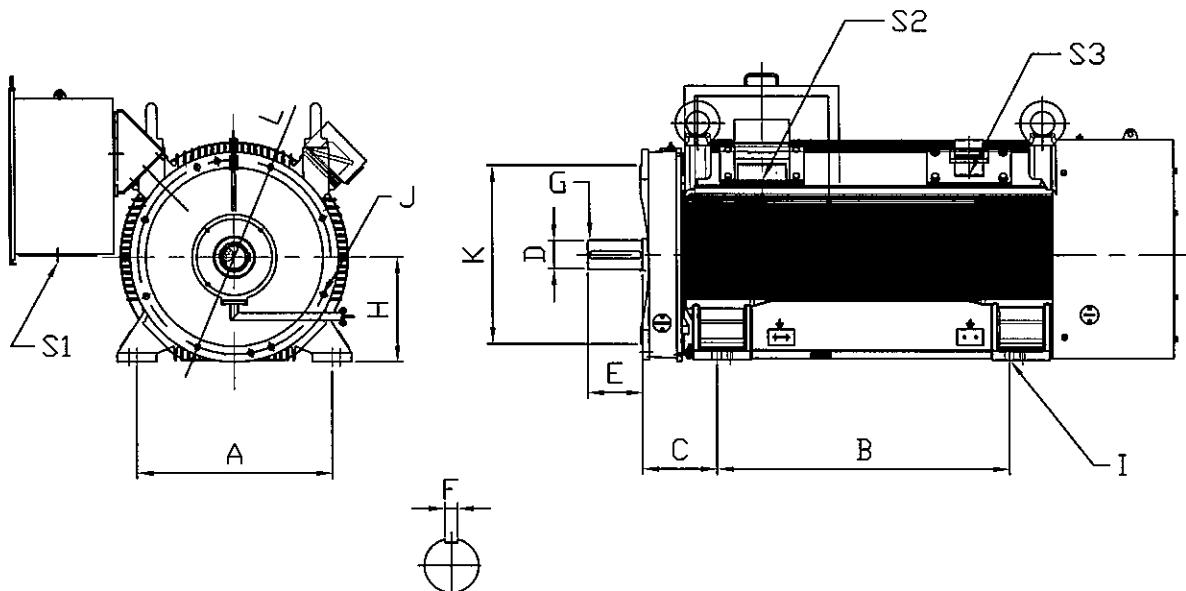
VISUAL INSPECTION : AC

AC : ACCEPT (양호)	RJ : REJECT (불량)	NA : NOT APPLICATION (해당없음)	FINAL INSPECTION 최종 판정
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CHECKED BY :
검 토 자

	INSPECTION REPORT 검사 성적서			
PROJ. NO. 수주번호	20222310RMH482	SPEC 용량, 형식	750kW, 4P, 6600V	INSP. DATE 검사 일
PROJ.NAME 수 주 명	삼성전자 천안C4	DWG. NO. 도면번호	HM-101711/R.3	INSPECTOR 검사자
		Q'TY 수량	1SET	SERIAL NO. 일련번호

FINAL CHECK SHEET(D)

*.CHECK POINT "G" SHAFT RUN-OUT

CHECK DEVICE : V-CALIPERS, MICROMETER, DEPTH GAUGE

PART \ MK	A	B	C	D	E	F	G	H	I	J
SPEC	± 1.5 750	± 2.5 1120	± 1.0 285	± 0.035 $\phi 110$	± 0.5 210	-0.022 28	max. 0.070	-0.0 400	4- $\phi 35$ 8- $\phi 23$	
CHECK	$+0.2$	$+0.1$	± 0	$+0.038$	± 0	-0.060	0.018	-0.4	4- $\phi 35$ 8- $\phi 23$	

PART \ MK	K	L	S1	S2	S3					
SPEC	-0.0 $\phi 680$	± 0.8 $\phi 740$	1- $\phi 90$	2-M25XP1.5	1-M25XP1.5					
CHECK	-0.03	$+0.1$	1- $\phi 90$	2-M25XP1.5	1-M25XP1.5					

NOTE(특기)

VISUAL INSPECTION : AC

AC : ACCEPT (양호)	RJ : REJECT (불량)	NA : NOT APPLICATION (해당없음)	FINAL INSPECTION 최종 판정
			ACCEPT

A4(210mm x 297mm)

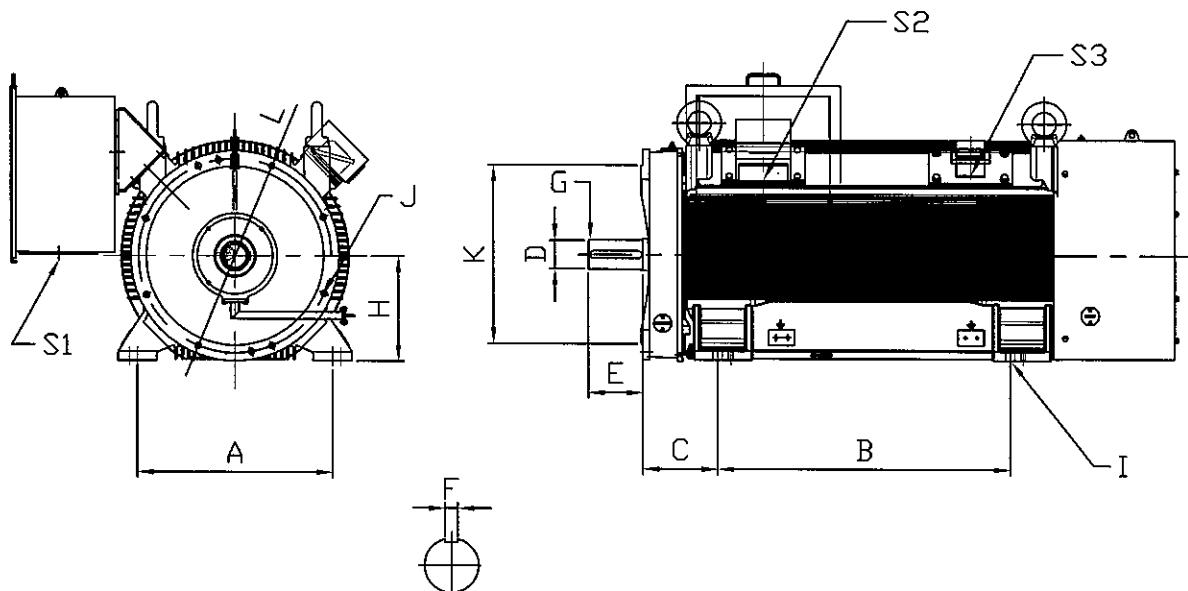


INSPECTION REPORT
검사 성적서

CHECKED BY :
검 토 자

PROJ. NO. 수주번호	20222310RMH482	SPEC 용량, 형식	750kW, 4P, 6600V	INSP. DATE 검사 일	
PROJ.NAME 수 주 명	삼성전자 천안C4	DWG. NO. 도면번호	HM-101711/R.3	INSPECTOR 검사자	
		Q'TY 수량	1SET	SERIAL NO. 일련번호	20222310RMH482006

FINAL CHECK SHEET(D)



*.CHECK POINT "G" SHAFT RUN-OUT

CHECK DEVICE : V-CALIPERS, MICROMETER, DEPTH GAUGE

PART \ MK	A	B	C	D	E	F	G	H	I	J
SPEC	± 1.5 750	± 2.5 1120	± 1.0 285	± 0.015 $\phi 110$	± 0.5 210	-0.024 28	max. 0.070	-1.0 400	4- $\phi 35$ 8- $\phi 23$	
CHECK	+0.2	+0.2	+0.2	+0.026	+0	-0.080	0.010	-0.6	4- $\phi 35$ 8- $\phi 23$	

PART \ MK	K	L	S1	S2	S3					
SPEC	-1.0 $\phi 680$	± 0.8 $\phi 740$	1- $\phi 90$	2-M25XP1.5	1-M25XP1.5					
CHECK	-0.04	+0.1	1- $\phi 90$	2-M25XP1.5	1-M25XP1.5					

NOTE(특기)

VISUAL INSPECTION : AC

AC : ACCEPT (양호)	RJ : REJECT (불량)	NA : NOT APPLICATION (해당없음)	FINAL INSPECTION 최종 판정
ACCEPT			ACCEPT

A4(210mm x 297mm)

	INSPECTION REPORT 검사 성적서			CHECKED BY :
PROJ.NO 수주번호	20222310RMH482	SPEC 용량, 형식	750kW, 4P, 6600V, 60Hz	INSP.DATE 검사일
PROJ.NAME 수 주 명	삼성전자 천안 C4	DWG.NO 도면번호	P-2022310 Rev. 0	INSPECTOR 검사자
		Q'TY 수량	3 SET	SERIAL.NO 일련번호



20222310RMH48200 1 ~ 3

FINAL PAINT CHECK SHEET 페인트 검사

(UNIT : μm)

PART 구분	INSPECTION ITEM 검사 항목	SPEC 기준값	CHECK (검사)			REMARK
			NO. 1	NO. 2	NO. 3	
Prime Coat.	PAINT MT'L(재질)	EP1160(H)	EP1160(H)	EP1160(H)	EP1160(H)	
	COLOR(색상)	Gray	Gray	Gray	Gray	
	THICKNESS(두께)	60μm	68μm	70μm	69μm	
	T,Hu,D/P,:5~40°C , 85%이하↓	AIR TEMP 30 °C HUMIDITY 65 % DEW POINT 22.7				
Intermediate Coat.	PAINT MT'L(재질)	EH6270	EH6270	EH6270	EH6270	
	COLOR(색상)	N7.0	N7.0	N7.0	N7.0	
	THICKNESS(두께)	60μm	129μm	131μm	130μm	
	T,Hu,D/P,:5~40°C , 85%이하↓	AIR TEMP 23 °C HUMIDITY 34 % DEW POINT 6.3				
Finish Coat.	PAINT MT'L(재질)	UT6780(S)	UT6780(S)	UT6780(S)	UT6780(S)	
	COLOR(색상)	7.5 BG 6/1	7.5 BG 6/1	7.5 BG 6/1	7.5 BG 6/1	
	THICKNESS(두께)	40μm	169~260μm	171~270μm	170~280μm	
	T,Hu,D/P,:5~40°C , 85%이하↓	AIR TEMP 22 °C HUMIDITY 31 % DEW POINT 4.1				
Total Dry film thickness		Min 160 μm	169~260μm	171~270μm	170~280μm	

* VISUAL (외관): AC

* NOTE (노트):

AC : ACCEPT 양 호	RJ : REJECT 불 량	NA : NOT APPLICABLE 해 당 없 음	FINAL DECISION 최 종 판 정	23 ACCEPT
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	INSPECTION REPORT 검사 성적서			CHECKED BY :	
PROJ.NO 수주번호	20222310RMH482	SPEC 용량, 형식	750kW, 4P, 6600V, 60Hz	INSP.DATE 검사일	
PROJ.NAME 수 주 명	삼성전자 천안 C4	DWG.NO 도면번호	P-20222310 Rev. 0	INSPECTOR 검사자	20222310RMH48200 4 ~ 6
		Q'TY 수량	3 SET	SERIAL.NO 일련번호	

FINAL PAINT CHECK SHEET 페인트 검사

(UNIT : μm)

PART 구분	INSPECTION ITEM 검사 항목	SPEC 기준값	CHECK (검사)			REMARK
			NO. 4	NO. 5	NO. 6	
Prime Coat.	PAINT MT'L(재질)	EP1160(H)	EP1160(H)	EP1160(H)	EP1160(H)	
	COLOR(색상)	Gray	Gray	Gray	Gray	
	THICKNESS(두께)	60μm	69μm	67μm	70μm	
	T, Hu, D/P, :5~40°C, 85%이하↓	AIR TEMP 30 °C HUMIDITY 65 % DEW POINT 22.7				
Intermediate Coat.	PAINT MT'L(재질)	EH6270	EH6270	EH6270	EH6270	
	COLOR(색상)	N7.0	N7.0	N7.0	N7.0	
	THICKNESS(두께)	60μm	130μm	128μm	131μm	
	T, Hu, D/P, :5~40°C, 85%이하↓	AIR TEMP 23 °C HUMIDITY 34 % DEW POINT 6.3				
Finish Coat.	PAINT MT'L(재질)	UT6780(S)	UT6780(S)	UT6780(S)	UT6780(S)	
	COLOR(색상)	7.5 BG 6/1	7.5 BG 6/1	7.5 BG 6/1	7.5 BG 6/1	
	THICKNESS(두께)	40μm	170-290μm	168-270μm	171-280μm	
	T, Hu, D/P, :5~40°C, 85%이하↓	AIR TEMP 22 °C HUMIDITY 31 % DEW POINT 4.1				
Total Dry film thickness		Min 160. μm	170-290μm	168-270μm	171-280μm	

* VISUAL (외관): AC

* NOTE (노트):

AC : ACCEPT

RJ : REJECT

NA : NOT APPLICABLE

FINAL DECISION

최종 판정

양호

불량

해당 없음



ACCEP
T

Measuring Equipment List of Motor Test

NO.	Name	Size	Serial NO.	Calibration Date	Recalibration Date	Remarks
1	버니어캘리퍼스(Vernier Calipers)	0 - 300 mm	7077047	2022-09-17	2023-09-17	MITUTOYO
2	버니어캘리퍼스(Vernier Calipers)	0 - 1 000 mm	515068	2022-09-16	2023-09-16	ULIRA
3	높이게이지(Vernier Height gauge)	0 - 600 mm	100699	2022-03-05	2023-03-05	MITUTOYO
4	다이얼게이지(Dial gauge)	0 - 10 mm	KBE572	2022-04-06	2023-04-06	MITUTOYO
5	내측 마이크로미터(Caliper Micrometer)	5 - 30 mm	602216	2022-09-14	2023-09-14	MITUTOYO
6	외측 마이크로미터(Outside Micrometer)	100 - 125 mm	544757	2022-03-05	2023-03-05	MITUTOYO
7	Digital Coating Thickness Tester	0 - 1.5 mm	645063	2022-09-17	2023-09-17	MITUTOYO
8	줄자(Tape Measure)	5.0M	RM-0002	2021-05-28	2023-05-28	KOMELON
9			Blank			
10			Blank			
11			Blank			
12			Blank			
13			Blank			
14			Blank			
15			Blank			