



ASSESSMENT MATERIAL

EVIDENCE GUIDE

Qualification

LEN0142.v1

Level: 3

Credit: 20

Version: 1

LEN0123C.v1 Install three-phase wiring

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ASSESSMENT AND ASSESSOR DETAILS

Competent

☐

Not Yet Competent

☐

Assessment

☐

Re-Assessment

☐

Assessor Name:

Assessor Code

Assessor Signature

Date

DD		MM		YYYY					

CANDIDATE DETAILS

Candidate Name:

First Name

Last Name

Father Name

Institute Name and
District

CNIC/BFORM #

OR

Registration Number:

Gender

Male

Female

Candidate Consent

I agree to the time and date of the assessment and am aware of the requirements of the assessment. I fully understand my rights of appeal.

Candidate Signature:

ASSESSMENT RESULTS SUMMARY FORM

You can use this coversheet as an *Assessment Results Summary Form*. Simply post a photocopy of this completed coversheet to **NAVTTTC**

NAVTTTC OFFICE ONLY

1. DATE

FORM

RECEIVED:

DD		MM		YYYY					

2. DATE ENTERED INTO

DATABASE:

DD		MM		YYYY					

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ASSESSMENT SUMMARY & RECORD

CANDIDATE NAME:					FATHER NAME:		
ACTIVITY		METHOD			DESIRED OUTCOMES	RESULT	
NATURE OF ACTIVITY	WRITTEN	ORAL	OBSERVATION	PORTFOLIOS	DESIRED OUTCOMES FOR SUCCESSFUL ASSESSMENT OF COMPETENCY STANDARD: INSTALL THREE-PHASE WIRING	COMPETENT	NOT YET COMPETENT
Practical skill demonstration			✓		- Plan 3 Phase wiring layout of a machine hall - Lay cables according to the plan - Perform wiring test i.e. continuity, phase sequence and insulation test on laid wiring		
Knowledge Assessment		✓			Answer any questions your assessor may have for you during the practical skill demonstration		
Other Requirements	✓	✓	✓	✓	- All candidate formative assessments completed by Instructor including; ✓ Observations ✓ Demonstrations ✓ Questions and recorded answers - All work completed as module assignments and projects including: ✓ Material estimates ✓ Completed wiring layout ✓ Documented wiring test results ✓ Work related documents and procedures - Completed work records - Completed learner logbooks		

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CANDIDATE ASSESSMENT

Candidate Name:

Father Name:

ALL WORK ASSESSED IN THIS COMPETENCY STANDARD MUST BE YOUR OWN WORK.

GUIDANCE TO CANDIDATE

To meet this standard you are required to complete the following practical tasks within set timeframe:

- Install 3 phase 5 HP motor with star delta starter.
- Lay cables and equipment as per given plan.
- Perform wiring test i.e. continuity, phase sequence and insulation test on laid wiring.
- Perform commissioning of 3 phase 5 HP motor with star delta starter.

ACTIVITIES	CANDIDATE RESPONSE
• 1. Complete practical assessment of Install 3 phase 5 HP motor with star delta starter under observation by an assessor	During an assessment by an Assessor I will correctly carry out: • Install 3 phase 5 HP motor with star delta starter. ✓ Draw wiring layout including distance to connection points measurements ✓ Estimate materials including specifications ✓ Prepare tools, equipment and materials • Lay cables and equipment as per given plan. ✓ Prepare cable and equipment installation ✓ Install conduit, GI pipes, PVC pipes and/or ducts, DB. ✓ Connect cables and Points as per given plan • Perform wiring test i.e. continuity, phase sequence and insulation test on laid wiring. ✓ Inspect wiring and distribution board ✓ Carry out testing procedures and document results • Perform commissioning of 3 phase 5 HP motor with star delta starter. ✓ Perform pre commissioning tests on 3 phases 5 HP motor. ✓ Perform different operations on 3 phases 5 HP motor. ✓ Commission the 3 phases 5 HP motor with star delta starter
2. Complete knowledge assessment	Answer all questions my assessor may have during the practical assessment
3. Other requirements	• All candidate formative assessments completed by Instructor including; ✓ Observations ✓ Demonstrations ✓ Questions and recorded answers • All work completed as module assignments and projects including: ✓ Material estimates and specifications ✓ Completed wiring layout ✓ Documented wiring test results ✓ Work related documents and procedures • Completed work records • Completed learner logbooks

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ASSESSOR JUDGEMENT GUIDE

Candidate Name:

Father Name:

INSTRUCTIONS FOR ASSESSOR

THIS SECTION CONTAINS MINIMUM EVIDENCE REQUIREMENTS.

Set timeframe for practical skill demonstration must be adequate for candidate to install three-phase wiring in the commercially viable timeframes for the tasks.

Oral questioning may be used to clarify candidate understanding of the topic and its application.

ACTIVITIES	MINIMUM EVIDENCE REQUIRED	YES	NO	ASSESSOR COMMENTS
1. Completed practical assessment of Install 3 phase 5 HP motor with star delta starter. Under observation by an assessor	During a practical assessment, under observation by an assessor, the candidate correctly: - Installed 3 phase 5 HP motor with star delta starter. ✓ Drawn wiring layout including distance to connection points measurements ✓ Estimated materials including specifications ✓ Prepared tools, equipment and materials - Laid cables and equipment as per given plan. ✓ Prepared cable and equipment installation ✓ Installed conduit, GI pipes, PVC pipes and/or ducts, DB. ✓ Connect cables and earth points as per given plan - Performed wiring test i.e. continuity, phase sequence and insulation test on laid wiring. ✓ Inspect wiring and distribution board ✓ Carry out testing procedures and document results - Performed commissioning of 3 phase 5 HP motor with star delta starter. ✓ Performed pre commissioning tests on 3 phases 5 HP motor. ✓ Performed different operations on 3 phases 5 HP motor. ✓ Commissioned the 3 phases 5 HP motor with star delta starter			
2. Knowledge assessment	Candidate's answers to questions are correct and demonstrate understanding of the topics and their application. <i>Assessor to document below all questions asked and candidate answers. Use extra sheets if required and attached.</i>			
3. Other requirements	- All candidate formative assessments completed by Instructor including; ✓ Observations ✓ Demonstrations ✓ Questions and recorded answers - All work completed as module assignments and projects including: ✓ Material estimates and specifications ✓ Completed wiring layout ✓ Documented wiring test results			

	✓ Work related documents and procedures • Completed work records • Completed learner logbooks			
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LIST OF TOOLS, EQUIPMENT, MATERIAL AND CONTEXT OF ASSESSMENT

Instructions	This section contains information regarding; - Context of the assessment - List of required tools and equipment. - List of consumable items required during the service
1. Context of Assessment	This practical skill demonstration will be conducted in a Building Electrician's lab/workshop environment The Assessor will select the required tools, equipment and consumables from the list below for the assessment

2. List of tools and equipment required		
S. No	Tools and equipment	Quantity
1	Personal protective equipment	05 No's
2	Fire extinguishers	05 No's
3	First aid box	05 No's
4	Adjustable wrench	05 No's
5	Amp meter	05 No's
6	AVO meter	05 No's
9	Bench vice	05 No's
10	Ceiling hole cutter	05 No's
11	Charge controller	05 No's
12	Chisel	05 No's
13	Clamp on meter	05 No's
14	Compass	05 No's
15	Cutter	05 No's
16	Drill machine	05 No's
17	Earth tester meter	05 No's
18	Extension board	05 No's
19	File set	05 No's
21	Gloves	05 No's
22	Goggles	05 No's
23	Grinder	05 No's
24	Hammer	05 No's
25	Hand drill machine	05 No's
26	Helmet	05 No's
28	Hex saw	05 No's
29	Knife (cable)	05 No's
30	Level	05 No's
31	L-key set	05 No's
32	Lock plier	05 No's
33	Measuring tape	05 No's
34	Megger meter (Analog & Digital)	05 No's
35	Micrometre	05 No's
36	Multimeter	05 No's
37	Number punch	05 No's
38	Phase sequence meter	05 No's
39	Pipe cutter	05 No's
40	Pipe vice	05 No's
42	Plier set	05 No's
43	Punching tool (Networking /Telephone)	05 No's
44	Ratchet set	05 No's
45	Safety boots	05 No's
46	Scissor	05 No's
47	Screw driver set	05 No's
48	Soldering iron	05 No's
49	Spanner set	05 No's
50	Steel scale	05 No's

51	Steel wire	05 No's
52	synchronizing meter	05 No's
53	Tachometer	05 No's
54	Tester	05 No's
55	Thimble press	05 No's
56	Tong tester (clamp-on meter) AC/DC	05 No's
57	Torch	05 No's
58	Vernier calliper	05 No's
59	Volt meter	05 No's
60	Wire gauge	05 No's
61	Wood saw	05 No's

3. List of consumable items required		
S. No	Consumable Items	Quantity
1	Cable 3 / .029"	As Required
2	Cable 7 / .029"	As Required
3	Cable 1 / .036"	As Required
4	Cable 23 / .0076"	As Required
5	Cable 40 / .0076"	As Required
6	Switch Single Way	As Required
7	Switch Two Way	As Required
8	Push Button	As Required
9	Bulb Holder Piano Type	As Required
10	Bulb Holder Button Type	As Required
11	Ceiling Rose	As Required
12	Fan Dimmer	As Required
13	Socket Two Pin	As Required
14	Socket Three Pin	As Required
15	Light Plug	As Required
16	Power Plug	As Required
17	PVC Pipe	As Required
18	PVC Elbow	As Required
19	PVC Band	As Required
20	Junction Box	As Required
21	Fan Box	As Required
22	Ravel Plug	As Required
23	Pipe Saddle	As Required
24	Cable Saddle	As Required
25	Board 4 x 4	As Required
26	Board 7 x 4	As Required
27	Board 8 x 10	As Required
28	TV Pin	As Required
29	Telephone Pin	As Required
30	Insulation Tape	As Required
31	PVC Duct Plain 3/4"	As Required
32	PVC Duct Slotted 1"	As Required
33	PVC Duct Plain 3/4"	As Required
34	PVC Duct Slotted 1"	As Required
35	Fuse Piano Type	As Required
36	Main Switch	As Required
37	Breaker Single Poll	As Required
38	Breaker Double Poll	As Required
39	Volt meter Panel	As Required
40	Ampere Meter Panel	As Required
41	DB Box	As Required
42	DB Switch	As Required
43	PG Connector	As Required
44	Neutral Terminal	As Required
45	Screw Different Size	As Required
46	Steel Nail Different Size	As Required
47	Blub 100 Watt	As Required
48	Bulb 200 Watt	As Required

49	Nut Bolt Different Size	As Required
50	Electric Bell	As Required
51	Two Pin Shoe	As Required
52	Three Pin Shoe	As Required
53	Cable Tube Connection	As Required
54	Tube Rod	As Required
55	Choke 20w, 40w	As Required
56	Tube Starter	As Required
57	Choke Patti Fitting	As Required
58	Winding Wire Different Size	As Required
59	Slat Paper Different Size	As Required
60	Cotton Tape	As Required
61	Sleeve Different Size	As Required
62	Varnish	As Required
63	Cable Three Core 40/ .0076	As Required
64	Cable Four Core 7/ .036	As Required
65	Cable Three Core 7/ .029	As Required
66	Connection Plate	As Required
67	Clutch Plate	As Required
68	Breaker Fitting Patti (Din Ray)	As Required
69	Relay 12V, 5A	As Required
70	Resistor Different Types	As Required
71	Transistor Different Types	As Required
72	LED	As Required
73	Diode	As Required
74	Rectifier Bridge	As Required
75	Carbon Brush	As Required
76	Battery 6v	As Required
77	Breaker Stripe	As Required
78	Flout Switch	As Required
79	Magnetic Connector	As Required
80	Cut Out	As Required
81	Breaker Cartridge Fuse	As Required
82	ON / OFF Push Button	As Required
83	Timer	As Required
84	Relay AC – 220V	As Required
85	Relay DC- 12V	As Required
86	Selector Switch Volt Meter	As Required
87	Selector Switch Ampere Meter	As Required
88	Emergency Switch	As Required
89	Soldering Wire	As Required
90	Paste	As Required
91	Light Indicator	As Required
92	Limit Switch (MEM Inter Locking)	As Required
93	Motor Driven Selector Switch (Water Tank)	As Required
94	Speaker	As Required
95	Acid	As Required
96	Hydro Metter	As Required
97	Multi Metter (Analogue / Digital)	As Required
98	Cam Starter (single phase & three phase)	As Required
99	Generator Switch	As Required
100	Star Delta Manual	As Required
101	Capacitor Different Size	As Required
102	Intercom Bell	As Required
103	Over Load Relay	As Required
104	Forward Reverse Switch	As Required
105	Tai Different Size	As Required
106	Magnetic Connector	As Required
107	Current Transformer	As Required
108	8 Pin type & 11 Pin type relay with base	As Required
109	Timer Circuit	As Required
110	Relay Circuit	As Required

111	Bobbin Transformer	As Required
112	Core Transformer	As Required
113	Coal	As Required
114	Calcium Carbonate	As Required
115	Petrol	As Required
116	Heat Sleeve Tube	As Required
117	Changer Over Switch	As Required
118	Timer 0-60 second	As Required
119	Time 1-6 minute	As Required
120	Baboon 1 ¼", 1 ½", 2", 2x3"	As Required
121	UPS Card	As Required