

PLW/PATIALA

Title: Schedule of Requirement (SOR) for Supply of harnessed cable for DETC/US.	PLW/DETC/Harnessed Cable/SOR/002
	Date:-03.08.2023
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1. Scope:

- 1.1 The scope of this specification covers the manufacturing and supply of harnessed cables of DETC along with its accessories.





2. Scope of Supply:

- 2.1 Firm shall supply complete set of harnessed cable looms for DETC as per **Annexure 'A'**.
- 2.2 Firm shall supply required materials i.e., SD Sleeves, lugs, DTMS etc. for open end of harnessed cable looms in loose condition, as specified in Table-I of **Annexure 'A'**.
- 2.3 Firm shall supply required hardware as specified in Table-I of **Annexure 'A'**.
- 2.4 Firm shall supply conduits and cable jackets of all size in appropriate rolls as per **Annexure 'A'**.
- 2.5 Cables of following harness number shall be bunched in single 40 mm cable jacket (Total-35 Nos). Refer drawing number DETC/US-7-0-040, Annexure 'A'.

Harness No.	1	2	4	5	6	17	18	19	20	22
S. No.	-	4	4	-	-	2	1,3	-	-	-
No. of cable	04	04	02	08	02	04	04	02	02	03

3. Submission of Tender/Quotation:

- 3.1 The tenderer shall give sufficient information to prove that his factory has adequate facilities and capacity to manufacture and supply the complete set of harnessed cable with quality of materials and workmanship meeting technical requirements of this specification and latest version of STR No. CLW/ (2017)/ELDO/ (E)/STR/01, Rev. 0. or RCF/EL/0015-Rev D (2020)
- 3.2 Offer shall be considered incomplete and liable to be rejected unless all information is furnished.

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4. Quality assurance:

- 4.1 Items for which the harness supplier is not an approved source itself as per latest UVAM Vendor Directory (VD), the supplier shall have to procure those items from the approved sources as per latest UVAM VD:

SN	Category of Items	Drg. No. / Specification No.	UVAM ID
1	E-Beam Cables	ELRS/SPEC/ELC/ 0019, Rev '4' & STR: RDSO/2017/EL/STR/0087, Rev. 0(Electron Beam Irradiation curing).	3100270
2	2-Core Screened Cable, 2.5 Sq mm	CLW/ES/3/0459. ALT-C	3100272
3	Flexible Conduits, Straight Connectors and end fitting straight	RDSO/PE/SPEC/AC/0138-2009, REV-1	2400041
4	Nylon Cable tie	CLW/ES/C-54 ,Alt B	2100917
5	SS Hardware	CLW/MS/3/040 ALT-14,CLW/MS/10/053 ALT-06	2100233

- 4.2 All other items, not appearing in UVAM VD, are to be procured from successful suppliers of the subject item, to any of the PUs of Indian Railways, against regular order in the preceding five years. Documentary evidence towards such successful past performance shall be made available by the firm, in the form of Railway POs and R/Notes. In case, the firm wants to procure any item from any other source, prior approval of PLW Design office may be taken, giving proper justification.
- 4.3 Proper tools shall be used for manufacturing harnessed cables.
- 4.4 Technical and testing parameter of all items appearing in **Annexure 'A'** shall be as per **Annexure 'B'**.
- 4.5 For Wire end ferrules, crimping sockets, Lugs, cable jackets and other supporting material mentioned in **Annexure 'A'**, firm shall ensure quality/standard parameters regarding technical testing and performance of each item and crimped interfaces. Firm shall ensure that at any stage of manufacturing of cable harness or its auxiliary/supporting material, quality cannot be compromised.

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- 4.6 To ascertain the quality of material, test certificates of material from OEM are to be submitted to PLW. However, if required, PLW reserves the right to inspect material at OEM's premises in the presence of PLW representatives to ensure the quality of material.
- 4.7 Material for Open end (i.e. N side) should be provided by firm to PLW in loose condition and suitably packed (with individual item identification) to prevent any transit/storage damages.
- 4.8 All closed ends (i.e. Y side) as mentioned in the **Annexure 'A'** must be properly crimped and covered with Shrink-down Sleeve of appropriate length.
- 4.9 Cable marking-SD sleeve, color yellow shall be used for DTMS and thereafter transparent SD sleeve to cover the DTMS of appropriate size. Cable Marker (Printed DTMS) to be aligned during application on cable in such a way that it should be clearly visible and readable.
- 4.10 Transparent SD sleeve of proper size shall be used to cover crimped lug and wire interface.
- 4.11 SD sleeve of Yellow-Green color of proper size shall be used to cover crimped lug of Earthing cable (marked as 'E' cable).
- 4.12 Identification/Marking on each cable Looms should be as per cable number mentioned in **Annexure 'A'**
- 4.13 List of material requirement given in **Annexure 'A'** is for general guidance and indicative only. There can be minor variations in requirement of material which should be brought out by firm during execution of work for scrutiny and approval of PLW.
- 4.14 Firm should have traceability up to component level.
- 4.15 Firm to provide OEM's test reports for all accessories used in the harness.
- 4.16 For manufacturing of DETC harnessed cable, firm may visit ECS shop of PLW for sample reference.

5. **Approval of sample:**

- 5.1 The first time supplier shall make available one prototype of item for inspection and prototype test at its premises.
- 5.2 The stage Inspection of manufacturing process being adopted to be demonstrated by firm to representative of PLW during prototype inspection.

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- 5.3 During type test or routine test if it is considered necessary by PLW's authorized representative to carry out any further tests or trials, the supplier will arrange for the same by quickest means.
- 5.4 Firm shall supply one first sample set for fitment before Regular/bulk supply. Further supply shall be intimated after approval of first sample set. If any rectification required, supplier must incorporate these changes in all future supplies. Any additional quantity or other accessories which may be required for completion of harnessed cable looms of DETC will be supplied by the firm free of cost, if notified by PLW after trial fitment of First Sample.
- 5.5 Successful tenderer may collect any other technical details/ drawings from PLW Design office, if required as per schedule of items.

6. Tests:




Type test and Routine test shall be carried out according to relevant internationals/Indian standards.

- 6.1 **Type test:** All the type tests, mentioned in clause 6.5 shall be carried out on prototype unit.
- 6.2 **Routine test:** Routine test mentioned in clause 6.5 shall be carried out on each set by the manufacturer at his works to ensure compliance with the specification and drawings.
- 6.3 Test protocol shall be submitted by firm for approval before proceeding prototype test.
- 6.4 A copy of the internal test report, conducted by the firm shall be supplied to inspecting authority during type test and routine test.

6.5 Table for tests:

Test for harnessed cables at firm's premises:

S. No.	Tests	Type Test	Routine test
1	Dimension And Visual Inspection	Yes	Yes
2	General Concerning Testing	Yes	Yes
3	Checking Of Electrical Continuity	Yes	Yes
4	Insulation Impedance Test	Yes	Yes

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5	Millivolt Drop Test	Yes	Yes(a)
6	Pull out And Contact Pressure Test	Yes	Yes (b)
7	Tensile Strength	Yes	Yes (b)
8	Micrograph Test	Yes	Yes (b)
9	Crimp Height And Width Measurement Test	Yes	Yes (b)
10	Voltage Withstand Test	Yes	Yes
11	Test for crimping sockets	Yes	Yes
12	Originality of the bill of material with proof of the invoices	Yes	Yes

(a) In Routine Test, Millivolt drop test shall be carried out on 5% of quantity or minimum 01 (One) set.

(b) Being destructive test, Pull out and contact pressure Test, Tensile Strength Test, Micrograph Test and Crimp Height and Width Measurement Test shall be carried out on prepared samples instead of Harness Cables.

7. Packing:

- 7.1 Packing of harness shall be done as per standard packing practices to the satisfaction of railways. Harness shall be bunched together and shall be supplied as single unit per DETC. Each harness shall be duly bunched individually and legibly marked as per detailed specified in **Annexure 'A'**.
- 7.2 Each harness bunch/ cable should be wrapped with waterproof material to avoid water/moisture ingress.
- 7.3 Harness should be packed in wooden box of proper length.
- 7.4 Wooden box should have sufficient clearance at bottom for fork lifting.
- 7.5 Each box should be marked with packing particulars on front side so that packing material on particular box can be identified easily.
- 7.6 Harnessed cables to be packed separately for each Drawing Set, i.e. DETC/US-7-0-039, DETC/US-7-0-040 and DETC/US-7-0-046 as mentioned in **Annexure 'A'**.

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7.7 Loose material (as per Table-I) of different types should be separately packed with proper identification and quantity marked.

8. Enclosures:

8.1 Annexure 'A' : 'Scope of supply of harnessed cables for DETC'

- { Comprises of
- (i) Drg. No. 231-7-0-039
- (ii) Drg. No. 231-7-0-040
- (iii)Drg. No. 231-7-0-046
- (iv) Table-I }

8.2 Annexure 'B' : Technical and testing requirement of Annexure 'A'

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39772/2024/HEP-CEE40700

Scope of Supply of Harness cable for DETC

HARNESS CHART FOR ROOF (DET/CUS-7-0-039)

2024/HEP-CEE40700														
From		To												
Sl. No.	Cable Number	Location	Log Type	Crimping Status (Y/N)	Location	Log Type	Crimping Status (Y/N)	Cable Size (IN SQ. MM)	No. of Cable	Cable length (in meters)	FLEXIBLE CONDUIT USAGE	CABLE JACKET USAGE	Remarks	
1	1	L+,EL+,F+	CONTROL CUBICLE CAB-1	WIRE END FERRULE 2.5-12BU	Y	JB-5	WIRE END FERRULE 2.5-12BU	Y	4GKW2.5	3	6.5		20mmX6mtr	-
	2	L-,EL-,F-		WIRE END FERRULE 2.5-12BU	Y		WIRE END FERRULE 2.5-12BU	Y		3	6.5			-
	3	L+,EL+,F+	JB-5	WIRE END FERRULE 2.5-12BU	Y	JB-4	WIRE END FERRULE 2.5-12BU	Y		3	3		20mmX2.5mtr	-
	4	L-,EL-,F-		WIRE END FERRULE 2.5-12BU	Y		WIRE END FERRULE 2.5-12BU	Y		3	3			-
	5	L+,EL+,F+	JB-4	WIRE END FERRULE 2.5-12BU	Y	JB-3	WIRE END FERRULE 2.5-12BU	Y		3	8.5		20mmX8mtr	-
	6	L-,EL-,F-		WIRE END FERRULE 2.5-12BU	Y		WIRE END FERRULE 2.5-12BU	Y		3	8.5			-
	7	L+,EL+,F+	JB-3	WIRE END FERRULE 2.5-12BU	Y	JB-2	WIRE END FERRULE 2.5-12BU	Y		3	6.5		20mmX6mtr	-
	8	L-,EL-,F-		WIRE END FERRULE 2.5-12BU	Y		WIRE END FERRULE 2.5-12BU	Y		3	6.5			-
	9	L+,EL+,F+	JB-2	WIRE END FERRULE 2.5-12BU	Y	JB-1 (FOR KITCHEN & 3BEARTH ROOM)	WIRE END FERRULE 2.5-12BU	Y		3	3		20mmX2.5mtr	-
	10	L-,EL-,F-		WIRE END FERRULE 2.5-12BU	Y		WIRE END FERRULE 2.5-12BU	Y		3	3			-
2	1	L+	JB-1 (FOR KITCHEN & 3BEARTH ROOM)	WIRE END FERRULE 2.5-12BU	Y	LL1SW	ICF/SK-7-2-528,ITEM 23-M4	Y		1	3.5		-	
	2	EL+		WIRE END FERRULE 2.5-12BU	Y	LL2SW	ICF/SK-7-2-528,ITEM 23-M4	Y		1	3.5		-	
	3	EL+		WIRE END FERRULE 2.5-12BU	Y	LL3SW	ICF/SK-7-2-528,ITEM 23-M4	Y		1	5		-	
	4	EL+		WIRE END FERRULE 2.5-12BU	Y	LL4SW	ICF/SK-7-2-528,ITEM 23-M4	Y		1	2.3		-	
	5	EL+		WIRE END FERRULE 2.5-12BU	Y	NL1SW	ICF/SK-7-2-528,ITEM 23-M4	Y		1	5		-	
	6	F+		WIRE END FERRULE 2.5-12BU	Y	EXFAN1SW	ICF/SK-7-2-528,ITEM 23-M4	Y		1	5		-	
	7	F+		WIRE END FERRULE 2.5-12BU	Y	FAN1SW	ICF/SK-7-2-528,ITEM 23-M4	Y		1	5		-	
	8	F+		WIRE END FERRULE 2.5-12BU	Y	FAN2SW	ICF/SK-7-2-528,ITEM 23-M4	Y		1	5		-	
	9	L-		WIRE END FERRULE 2.5-12BU	Y	LL1	WIRE END FERRULE PIN TYPE CP27	Y		1	4.5		-	
	10	EL-		WIRE END FERRULE 2.5-12BU	Y	LL2	WIRE END FERRULE PIN TYPE CP27	Y		1	4.5		-	
	11	EL-		WIRE END FERRULE 2.5-12BU	Y	LL3	WIRE END FERRULE PIN TYPE CP27	Y		1	3		-	
	12	EL-		WIRE END FERRULE 2.5-12BU	Y	LL4	WIRE END FERRULE PIN TYPE CP27	Y		1	1.5		-	


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W/M/Design


SSE/MPS-2


W/M/Plg.


JE/ECS


SSE/ECS


AWM/ECS

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Sl. No.	Cable Number	Location	From	To	Cable Size	No. of Cable	Cable length (in meter)	FLEXIBLE CONDUIT USAGE	CABLE JACKET USAGE	Remarks
Sl. No.	Cable Number	Location	From	To	Cable Size	No. of Cable	Cable length (in meter)	FLEXIBLE CONDUIT USAGE	CABLE JACKET USAGE	Remarks
13	EL-		WIRE END FERRULE 2.5-12BU	NL1	WIRE END FERRULE PIN TYPE CP27	Y	1	2.5		-
14	F-		WIRE END FERRULE 2.5-12BU	FAN1 CON.	WIRE END FERRULE 2.5-12BU	N	1	4		-
15	F-		WIRE END FERRULE 2.5-12BU	FAN2 CON.	WIRE END FERRULE 2.5-12BU	N	1	4		-
16	F-		WIRE END FERRULE 2.5-12BU	100VA INV.1 EX.FAN1	WIRE END FERRULE 2.5-12BU	N	1	5.5		-
17	EX F+	EXFAN1SW	ICF/SK-7-2-528,ITEM 23-M4	100VA INV.1 EX.FAN1	WIRE END FERRULE 2.5-12BU	Y	1	3.5		-
18	LL1	LL1SW	ICF/SK-7-2-528,ITEM 23-M4	LL1	WIRE END FERRULE PIN TYPE CP27	Y	1	5.5		-
19	LL2	LL2SW	ICF/SK-7-2-528,ITEM 23-M4	LL2	WIRE END FERRULE PIN TYPE CP27	Y	1	6.75		-
20	LL3	LL3SW	ICF/SK-7-2-528,ITEM 23-M4	LL3	WIRE END FERRULE PIN TYPE CP27	Y	1	4.5		-
21	LL4	LL4SW	ICF/SK-7-2-528,ITEM 23-M4	LL4	WIRE END FERRULE PIN TYPE CP27	Y	1	4		-
22	NL1	NL1SW	ICF/SK-7-2-528,ITEM 23-M4	NL1	WIRE END FERRULE PIN TYPE CP27	Y	1	4.5		-
23	EX F1+, EX F1-	100VA INV.1 EX.FAN1	WIRE END FERRULE 2.5-12BU	EX FAN1	WIRE END FERRULE 2.5-12BU	Y	2	8		-
24	F1	FAN1SW	ICF/SK-7-2-528,ITEM 23-M4	FAN1CON.	WIRE END FERRULE PIN TYPE CP27	Y	1	3.8		-
25	F2	FAN2SW	ICF/SK-7-2-528,ITEM 23-M4	FAN2 CON.	WIRE END FERRULE PIN TYPE CP27	Y	1	3.5		-
26	F1, F-	FAN1CON.	WIRE END FERRULE 1.5-8BK	FAN1	WIRE END FERRULE 1.5-8BK	N	2	-		-
27	F2, F-	FAN2 CON.	WIRE END FERRULE 1.5-8BK	FAN2	WIRE END FERRULE 1.5-8BK	N	2	-		Only lug required
1	L+		WIRE END FERRULE 2.5-12BU	LL5SW	ICF/SK-7-2-528,ITEM 23-M4	Y	1	2.5		-
2	EL+		WIRE END FERRULE 2.5-12BU	LL6SW	ICF/SK-7-2-528,ITEM 23-M4	Y	1	2.5		-
3	L+		WIRE END FERRULE 2.5-12BU	LL7SW	ICF/SK-7-2-528,ITEM 23-M4	Y	1	2.5		-
4	EL+		WIRE END FERRULE 2.5-12BU	LL8SW	ICF/SK-7-2-528,ITEM 23-M4	Y	1	2.5		-
5	EL+		WIRE END FERRULE 2.5-12BU	LL9SW	ICF/SK-7-2-528,ITEM 23-M4	Y	1	2.5		-
6	EL+		WIRE END FERRULE 2.5-12BU	NL2SW	ICF/SK-7-2-528,ITEM 23-M4	Y	1	2.5		-
7	F+		WIRE END FERRULE 2.5-12BU	EXFAN2SW	ICF/SK-7-2-528,ITEM 23-M4	Y	1	2.5		-
8	L-		WIRE END FERRULE 2.5-12BU	LL5	WIRE END FERRULE PIN TYPE CP27	Y	1	2		-

[Signature]
JE/LDO


JE/LDO

WM/Design


SSE/MPS-2

WM/Plg

Lakesh
JE/ECS

SSA/ECS


AWM/ECS

Annexure 'A'

39772/2024/HEP-CEE40700

2024-HEP-GEE40700		From			To			Cable Size IN SQ. MM	No. of Cable	Cable length (in meter)	FLEXIBLE CONDUIT USAGE	CABLE JACKET USAGE	Remarks
Location	Lug Type	Crimping Status (Y/N)	Location	Lug Type	Crimping Status (Y/N)								
3	9	EL-	JB-2 (2 BERTH ROOM & LAVATORY)	WIRE END FERRULE 2.5-12BU	Y	LL6	WIRE END FERRULE PIN TYPE CP27	Y	4GKW2.5	1	3.5	NW17 (20mm METRIC THREAD) x 5.5mtr NW17 (20mm METRIC THREAD) x 2mtr NW17 (20mm METRIC THREAD) x 3mtr	-
	10	L-		WIRE END FERRULE 2.5-12BU	Y	LL7	WIRE END FERRULE PIN TYPE CP27	Y		1	2.5		-
	11	EL-		WIRE END FERRULE 2.5-12BU	Y	LL8	WIRE END FERRULE PIN TYPE CP27	Y		1	3.8		-
	12	EL-		WIRE END FERRULE 2.5-12BU	Y	LL9	WIRE END FERRULE PIN TYPE CP27	Y		1	5		-
	13	EL-		WIRE END FERRULE 2.5-12BU	Y	NL2	WIRE END FERRULE PIN TYPE CP27	Y		1	2		-
	14	F+, F-		WIRE END FERRULE 2.5-12BU	Y	BR. FAN1	WIRE END FERRULE PIN TYPE CP27	Y		2	2.5		-
	15	F+, F-		WIRE END FERRULE 2.5-12BU	Y	BR. FAN2	WIRE END FERRULE PIN TYPE CP27	Y		2	4		-
	16	F-		WIRE END FERRULE 2.5-12BU	Y	100VA INV 2 EX FAN2	WIRE END FERRULE PIN TYPE CP27	Y		1	5.5		-
	17	EX F+	EXFAN1SW	ICF/SK-7-2-528,ITEM 23-M4	Y	100VA INV 2 EX FAN2	WIRE END FERRULE PIN TYPE CP27	Y		1	7		-
	18	LL5	LL5SW	ICF/SK-7-2-528,ITEM 23-M4	Y	LL5	WIRE END FERRULE PIN TYPE CP27	Y		1	3.5		-
	19	LL6	LL6SW	ICF/SK-7-2-528,ITEM 23-M4	Y	LL6	WIRE END FERRULE PIN TYPE CP27	Y		1	4.5		-
	20	LL7	LL7SW	ICF/SK-7-2-528,ITEM 23-M4	Y	LL7	WIRE END FERRULE PIN TYPE CP27	Y		1	4		-
21	LL8	LL8SW	ICF/SK-7-2-528,ITEM 23-M4	Y	LL8	WIRE END FERRULE PIN TYPE CP27	Y	1	4.5	-			
22	LL9	LL9SW	ICF/SK-7-2-528,ITEM 23-M4	Y	LL9	WIRE END FERRULE PIN TYPE CP27	Y	1	5.5	-			
23	NL2	NL2SW	ICF/SK-7-2-528,ITEM 23-M4	Y	NL2	WIRE END FERRULE PIN TYPE CP27	Y	1	3.5	-			
24	EX F2+, EX F2-	100VA INV 2 EX FAN2	WIRE END FERRULE PIN TYPE CP27	N	EX. FAN2	WIRE END FERRULE PIN TYPE CP27	N	2	-	Only lug required			
4	1	EL+	JB-3 (100VA DA SET & CABLE DRUM AREA)	WIRE END FERRULE 2.5-12BU	Y	LL10SW	ICF/SK-7-2-528,ITEM 23-M4	Y	4GKW2.5	1	3	NW17 (20mm METRIC THREAD) x 7.5mtr NW17 (20mm METRIC THREAD) x 6.5mtr	-
	2	L+		WIRE END FERRULE 2.5-12BU	Y	LL11SW	ICF/SK-7-2-528,ITEM 23-M4	Y		1	3		-
	3	L+		WIRE END FERRULE 2.5-12BU	Y	LL12SW	ICF/SK-7-2-528,ITEM 23-M4	Y		1	3		-
	4	EL+		WIRE END FERRULE 2.5-12BU	Y	LL13SW	ICF/SK-7-2-528,ITEM 23-M4	Y		1	3		-
	5	L-		WIRE END FERRULE 2.5-12BU	Y	LL10	WIRE END FERRULE PIN TYPE CP27	Y		1	3.5		-
	6	EL-		WIRE END FERRULE 2.5-12BU	Y	LL11	WIRE END FERRULE PIN TYPE CP27	Y		1	5.5		-
	7	EL-		WIRE END FERRULE 2.5-12BU	Y	LL12	WIRE END FERRULE PIN TYPE CP27	Y		1	2		-
	8	L-		WIRE END FERRULE 2.5-12BU	Y	LL13	WIRE END FERRULE PIN TYPE CP27	Y		1	5		-


JE/LDO


JE/LDO


WM/Design


SSE/MPS-2


WM/Plg.


JE/ECS


SSE/ECS


AWM/ECS

39772/2024/HEP-CEE40700

Home Type No.	Cable Number	From	To	Cable Size IN SQ. MM	No. of Cable	Cable length (in meter)	FLEXIBLE CONDUIT USAGE	CABLE JACKET USAGE	Remarks
Location	Location	Crimping Status (Y/N)	Crimping Status (Y/N)						
4	9	F+, F-	BR.FAN3	WIRE END FERRULE 2.5-12BU	Y	2	4		-
	10	LL10	LL10SW	ICF/SK-7-2-528,ITEM 23-M4	Y	1	5.5		-
	11	LL11	LL11SW	ICF/SK-7-2-528,ITEM 23-M4	Y	1	7.5		-
	12	LL12	LL12SW	ICF/SK-7-2-528,ITEM 23-M4	Y	1	4		-
	13	LL13	LL13SW	ICF/SK-7-2-528,ITEM 23-M4	Y	1	6.5		-
5	1	EL+	LL14SW	WIRE END FERRULE 2.5-12BU	Y	1	8	NW17 (20mm METRIC THREAD) x 5mtr NW17 (20mm METRIC THREAD) x 1.5mtr	-
	2	L+	LL15SW	WIRE END FERRULE 2.5-12BU	Y	1	2.5		-
	3	EL+	LL16SW	WIRE END FERRULE 2.5-12BU	Y	1	2.5		-
	4	EL-	LL14	WIRE END FERRULE 2.5-12BU	Y	1	5		-
	5	L-	LL15	WIRE END FERRULE 2.5-12BU	Y	1	1.5		-
	6	EL-	LL16	WIRE END FERRULE 2.5-12BU	Y	1	3		-
	7	F+, F-	BR.FAN4	WIRE END FERRULE 2.5-12BU	Y	2	3		-
	8	LL14	LL14	ICF/SK-7-2-528,ITEM 23-M4	Y	1	3.5		-
	9	LL15	LL15	ICF/SK-7-2-528,ITEM 23-M4	Y	1	3		-
	10	LL16	LL16	ICF/SK-7-2-528,ITEM 23-M4	Y	1	5		-
6	1	EL+	LL17SW	WIRE END FERRULE 2.5-12BU	Y	1	2.5	NW17 (20mm METRIC THREAD) x 3.5mtr NW17 (20mm METRIC THREAD) x 1mtr	-
	2	L+	LL18SW	WIRE END FERRULE 2.5-12BU	Y	1	2.5		-
	3	EL+	LL19SW	WIRE END FERRULE 2.5-12BU	Y	1	4.5		-
	4	EL-	LL17	WIRE END FERRULE 2.5-12BU	Y	1	1.5		-
	5	L-	LL18	WIRE END FERRULE 2.5-12BU	Y	1	2.5		-
	6	EL-	LL19	WIRE END FERRULE 2.5-12BU	Y	1	3.5		-
	7	F+, F-	BR.FAN5	WIRE END FERRULE 2.5-12BU	Y	2	2		-
	8	LL17	LL17	ICF/SK-7-2-528,ITEM 23-M4	Y	1	3		-
	9	LL18	LL18	ICF/SK-7-2-528,ITEM 23-M4	Y	1	4.5		-
	10	LL19	LL19	ICF/SK-7-2-528,ITEM 23-M4	Y	1	2.5		-


JE/LDO


JE/LDO


WM/Design


SSE/MPS-2


WM/Plg.


JE/ECS


SSE/ECS


AWM/ECS

Annexure 'A'

39772/2024/HEP-CEE40700

			From			To			Cable Size IN SQ. MM	No. of Cable	Cable length (in meter)	FLEXIBLE CONDUIT USAGE	CABLE JACKET USAGE	Remarks
			Location	Lug Type	Crimping Status (Y/N)	Location	Lug Type	Crimping Status (Y/N)						
7	1	LLD, 320	CONTROL CUBICLE CAB-1	WIRE END FERRULE 2.5-12BU	Y	LLD	WIRE END FERRULE PIN TYPE CP27	Y	4GKW2.5	2	7	NW23 (25mm METRIC THREAD) x 3mtr NW23 (25mm METRIC THREAD) x 3mtr	10mmX1mtr	-
	2	LLG, L-		WIRE END FERRULE 2.5-12BU	Y	LLG	WIRE END FERRULE PIN TYPE CP27	Y		2	6		10mmX1mtr	-
	3	CL, L-		WIRE END FERRULE 2.5-12BU	Y	CL	WIRE END FERRULE PIN TYPE CP27	Y		2	7		10mmX1mtr	-
	4	CFD, 320		WIRE END FERRULE 2.5-12BU	Y	CFD CON.	WIRE END FERRULE PIN TYPE CP27	Y		2	9		10mmX1mtr	-
	5	CFG, F-		WIRE END FERRULE 2.5-12BU	Y	CFG CON.	WIRE END FERRULE PIN TYPE CP27	Y		2	7		10mmX1mtr	-
	6	CFD, 320	CFD CON.	WIRE END FERRULE 1.5-8BK	N	CFD	WIRE END FERRULE 1.5-8BK	N	4GKW1.5	2	-			Only lug required
	7	CFG, F-	CFG CON.	WIRE END FERRULE 1.5-8BK	N	CFG	WIRE END FERRULE 1.5-8BK	N		2	-			
	8	SPLD, 320	DESK TB CAB-1	WIRE END FERRULE 2.5-12BU	Y	SPLD	WIRE END FERRULE PIN TYPE CP27	Y	4GKW2.5	2	7		10mmX1mtr	-
	9	SPLG, 320		WIRE END FERRULE 2.5-12BU	Y	SPLG	WIRE END FERRULE PIN TYPE CP27	Y		2	9		10mmX1mtr	-
8	1	LLD, 320	CONTROL CUBICLE CAB-2	WIRE END FERRULE 2.5-12BU	Y	LLD	WIRE END FERRULE PIN TYPE CP27	Y	4GKW2.5	2	9	NW23 (25mm METRIC THREAD) x 3mtr NW23 (25mm METRIC THREAD) x 3mtr		
	2	LLG, L-		WIRE END FERRULE 2.5-12BU	Y	LLG	WIRE END FERRULE PIN TYPE CP27	Y		2	7			
	3	CL, L-		WIRE END FERRULE 2.5-12BU	Y	CL	WIRE END FERRULE PIN TYPE CP27	Y		2	8			
	4	CFD, 320		WIRE END FERRULE 2.5-12BU	Y	CFD CON.	WIRE END FERRULE PIN TYPE CP27	Y		2	9			
	5	CFG, F-		WIRE END FERRULE 2.5-12BU	Y	CFG CON.	WIRE END FERRULE PIN TYPE CP27	Y		2	7			
	6	CFD, 320	CFD CON.	WIRE END FERRULE 1.5-8BK	N	CFD	WIRE END FERRULE 1.5-8BK	N	4GKW1.5	2	-			Only lug required
	7	CFG, F-	CFG CON.	WIRE END FERRULE 1.5-8BK	N	CFG	WIRE END FERRULE 1.5-8BK	N		2	-			
	8	SPLD, 320	DESK TB CAB-2	WIRE END FERRULE 2.5-12BU	Y	SPLD	WIRE END FERRULE PIN TYPE CP27	Y	4GKW2.5	2	7			
	9	SPLG, 320		WIRE END FERRULE 2.5-12BU	Y	SPLG	WIRE END FERRULE PIN TYPE CP27	Y		2	9			
9	1	424,420,E	3KVA DA SET	ICF/SK-7-2-166-CA/32	Y	P,N,E	ICF/SK-7-2-166-CA/32	Y	4GKW6	3	4			
	2	424,420,E	20A MCB PANEL	WIRE END FERRULE 2.5-12BU	Y	SOCKET FLOOD LIGHT-1	424,420-"WIRE END FERRULE 2.5-12BU" E- ICF/SK-7-2-528, ITEM-20-M5	Y	4GKW2.5	2	15		20mm X 14.5 mtr	
	3	424,420,E		WIRE END FERRULE 2.5-12BU	Y	SOCKET FLOOD LIGHT-2		Y		2	13		20mm X 12.5 mtr	
	4	424,420,E		WIRE END FERRULE 2.5-12BU	Y	SOCKET FLOOD LIGHT-3		Y		2	8		20mm X 7.5 mtr	
	5	424,420,E		WIRE END FERRULE 2.5-12BU	Y	SOCKET FLOOD LIGHT-4		Y		2	9		20mm X 8.5 mtr	
	6	424,420,E		WIRE END FERRULE 2.5-12BU	Y	SOCKET FLOOD LIGHT-5 (OBSERVATION ROOM)		Y		2	6		20mm X 5.5 mtr	
	7	-	FLOOD LIGHT 1-5	ICF/SK-7-2-528, ITEM-20-M5	Y	REY ROLL SOCKET	WIRE END FERRULE 2.5-12BU	Y	4GKW 2.5	10	2		20mm x 10 mtr	5 nos of 2 wire bunch


 JE/LDO


 JE/LDO


 WM/Design


 SSE/MP5-2


 WM/Plg.


 JE/ECS


 SSE/ECS


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Harness No.		Cable No.		Location	From	Crimping Status (Y/N)	Location	To	Crimping Status (Y/N)	Cable Size IN SQ. MM	No. of Cable	Cable length (in meter)	FLEXIBLE CONDUIT USAGE	CABLE JACKET USAGE	Remarks
2024-HEP-CEE40700	10	1	401, 402, 403, 410	RAM CONTROL PANEL	ICF/SK-7-2-166-C6/0	Y	10KVA DA SET	ICF/SK-7-2-166-C6/32	N	4GKW10	4	10	NW23 (25mm METRIC THREAD) x 8.5 mtr NW23 (25mm METRIC THREAD) x 11 mtr		-
		2	407, 408, 409, 410	RAM CONTROL PANEL	ICF/SK-7-2-166-CA/0	Y	WORKSHOP MCB (DRILLING M/C)	ICF/SK-7-2-166-CA/32	N	4GKW6	4	12.5			-
		3	31,32, 33, 34, 35, 38, 39, 41, 43, 45, 46, 48, 49, 1802, 1961, SP1, SP2, SP3, 1602, 1736	RAM CONTROL PANEL	WIRE END FERRULE 2.5-12BU	Y	ROOF JB FOR RAM PLATFORM	WIRE END FERRULE 2.5-12BU	Y	4GKW2.5	20	14			-
		4	R8, N1		WIRE END FERRULE 2.5-12BU	Y		WIRE END FERRULE 2.5-12BU	Y	4GKW2.5	2	13			-
		5	R7, Y7, B7, E,E		WIRE END FERRULE 2.5-12BU	Y	RAM SWIVELLING MOTOR	WIRE END FERRULE 2.5-12BU	Y	4GKW2.5	5	14			-
		6	R5,Y5,B5,E		WIRE END FERRULE 2.5-12BU	Y	MAIN HYDRAULIC MOTOR	WIRE END FERRULE 2.5-12BU	Y	4GKW4	4	11			-
		7	41,31,SP1,SP2,SP3		WIRE END FERRULE 2.5-12BU	Y	SOLENOID	WIRE END FERRULE 2.5-12BU	Y	4GKW1.5	5	11			-
		8	32, 50		WIRE END FERRULE 2.5-12BU	Y	PRESSURE SWITCH	WIRE END FERRULE 2.5-12BU	Y	4GKW1.5	2	11			-
		9	R8, N1, E		WIRE END FERRULE 2.5-12BU	Y	230V AC SOCKET 1 TO 4	WIRE END FERRULE 2.5-12BU	Y	4GKW2.5	9	14			-
		10	1602, 1736	ROOF JB FOR RAM PLATFORM	WIRE END FERRULE 2.5-12BU	Y	EMY OFF PB ON LIFTING PLATFORM LEFT SIDE	WIRE END FERRULE 2.5-12BU	Y	4GKW2.5	2	14	NW23 (25mm METRIC THREAD) x 11 mtr	-	
		11	1602, 1736		WIRE END FERRULE 2.5-12BU	Y	EMY OFF PB ON LIFTING PLATFORM RIGHT SIDE	WIRE END FERRULE 2.5-12BU	Y	4GKW2.5	2	3		-	
11	1	339, 360	CONTROL CUBICLE CAB-2	WIRE END FERRULE 2.5-12BU	Y	INSTRUMENT PANEL TELEPHONE EXCHANGE 3 BERTH ROOM	WIRE END FERRULE 2.5-12BU	Y	4GKW2.5	2	10	-	10mm X 9.5mtr	-	
	2	IC31	INSTRUMENT PANEL TELEPHONE EXCHANGE 3 BERTH ROOM	-	-	DRIVER DESK-1 (HANDSET)	-	-	2 PAIRX0.5	1	25	-	-	-	
	3	IC32		-	-	DRIVER DESK-2 (HANDSET)	-	-	2 PAIRX0.5	1	8.3				
	4	IC33		-	-	2 BERTH ROOM (HANDSET)	-	-	2 PAIRX0.5	1	5				
	5	IC34		-	-	SW. GROUP AREA (HANDSET)	-	-	2 PAIRX0.5	1	15.5				
	6	IC35		-	-	MATERIAL CABIN (HANDSET)	-	-	2 PAIRX0.5	1	19				
12	1	CS+, CS-	CONTROL CUBICLE CAB-2	WIRE END FERRULE 2.5-12BU	Y	110VDC MOBILE CHARGING SOCKET (2 BERTH ROOM)	WIRE END FERRULE 2.5-12BU	Y	4GKW2.5	2	10	-	20mm X 8mtr	-	
	2	CS+, CS-		WIRE END FERRULE 2.5-12BU	Y	110VDC MOBILE CHARGING SOCKET (3 BERTH ROOM)	WIRE END FERRULE 2.5-12BU	Y	4GKW2.5	2	13	-	20mm X 10mtr	-	
13	1	1830, 380	CONTROL CUBICLE CAB-1	WIRE END FERRULE 2.5-12BU	Y	PANTO PR. GAUGE OBSERVATION ROOM	ICF/SK-7-2-528,ITEM-23-M4	N	4GKW2.5	2	12	-	-	-	
	2	320		WIRE END FERRULE 2.5-12BU	Y	PANTO MAGNET VALVE OBSERVATION ROOM	ICF/SK-7-2-528,ITEM-20-M5	N		1	12	-	-	-	
	3	1728		WIRE END FERRULE 2.5-12BU	Y	PANTO UP/DOWN SW. OBSERVATION ROOM	ICF/SK-7-2-528,ITEM-23-M4	N		1	12	-	-	-	
	4	1802, 1827		WIRE END FERRULE 2.5-12BU	Y	PANTO GOV.	ICF/SK-7-2-528,ITEM-23-M4	N		2	12	-	20mm X 10mtr	-	
	5	1729	PANTO UP/DOWN SW. OBSERVATION ROOM	ICF/SK-7-2-528,ITEM-23-M4	N	PANTO MAGNET VALVE OBSERVATION ROOM	ICF/SK-7-2-528,ITEM-20-M5	N		1	-	-	-	Only lug required	
14	1	1602, 1736	EMERGENCY OFF PB OVER THE ROOF (NEAR OBSERVATION ROOM)	ICF/SK-7-2-528,ITEM-23-M4	Y	CONTROL CUBICLE CAB-1	ICF/SK-7-2-528,ITEM-23-M4	Y	4GKW2.5	2	11	-	-	In same conduit/cable jacket along with Harness No. 13, Sr. No. 4	
15	1	LOOP CABLE	CAB DESK-1 SPEEDOMETER PANEL	-	-	CAB DESK-2 SPEEDOMETER PANEL	-	-	2X2.5 SCR CABLE	2	30	-	-	-	


JE/LDO


JE/LDO


WJM/Design


SSE/MP5-2


WJM/Plg.


JE/ECS


SSE/ECS


AWM/ECS

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Header		2024/HEP-CEE40700												2	
Sl. No.	Cable Number	Location	From	Lug Type	Crimping Status (Y/N)	Location	Lug Type	Crimping Status (Y/N)	Cable Size IN SQ. MM	No. of Cable	Cable length (in meter)	FLEXIBLE CONDUIT USAGE	CABLE JACKET USAGE	Remarks	
16	1	1st END- A-BOARD CONTROL PANEL-1 2nd END- A-BOARD DRIVER DESK-2 (1,2,SP,3,4,5,6,7, 1731, 1654, 1655, 1657, 1614, 1658, 1656, 2014, 1632, 1802, 350A)	A-BOARD CONTROL PANEL-1	-	-	A-BOARD DRIVER DESK-2	-	-	4GKW2.5X19 CORE	1	30	NW29 (32mm METRIC THREAD x 8 mtr	-	-	
	2	1st END- B-BOARD CONTROL PANEL-1 2nd END- B-BOARD DRIVER DESK-2 (311, 311, 311, 322, 322, 1741, 1743, 1732, 1735, 1601, 2015, 1723, 1724, 1736, CS+, F+, L+, 2016, 1830)	B-BOARD CONTROL PANEL-1	-	-	B-BOARD DRIVER DESK-2	-	-	4GKW2.5X19 CORE	1	30	NW29 (32mm METRIC THREAD x 8 mtr	-	-	
	3	1st END- C-BOARD CONTROL PANEL-1 2nd END- C-BOARD DRIVER DESK-2 (1804, 1805, 1806, 1807, SP, 1808, 1809, 1811, 1812, 1514, 1815, SP, 1816, 1817, 1819, 1820, 1821, 1822, 1823)	C-BOARD CONTROL PANEL-1	-	-	C-BOARD DRIVER DESK-2	-	-	4GKW2.5X19 CORE	1	30	NW29 (32mm METRIC THREAD x 8 mtr	-	-	
	4	1st END- D-BOARD CONTROL PANEL-1 2nd END- D-BOARD DRIVER DESK-2 (1824, 1961, 1825, 1827, 1831, 1834, 1835, 1744, 1836, 1838, 1962, 1840, 1841, 1845, 1846, 255, 350B, 202, 1734)	D-BOARD CONTROL PANEL-1	-	-	D-BOARD DRIVER DESK-2	-	-	2.5 19 CORE	1	30	NW29 (32mm METRIC THREAD x 8 mtr	-	-	
	5	1st END- E-BOARD CONTROL PANEL-1 2nd END- E-BOARD DRIVER DESK-2 (320, 320, 320, 320, F, L, SP, 290, 296, SP, SP, 380, SP, HL-, 370, 210, SP,360, CS-)	E-BOARD CONTROL PANEL-1	-	-	E-BOARD DRIVER DESK-2	-	-	4GKW2.5X19 CORE	1	28	NW29 (32mm METRIC THREAD x 8 mtr	-	-	
	6	Spare Cable	-	-	-	-	-	-	4GKW2.5X19 CORE	1	30	NW29 (32mm METRIC THREAD x 8 mtr	-	-	
17	1	1802, 1961, 1602, 1736(EMY, OFF PB), SP1,SP2	RAM CONTROL PANEL	WIRE END FERRULE 2.5-12BU	Y	CONTROL CUBICLE CAB-1	WIRE END FERRULE 2.5-12BU	Y	4GKW2.5	6	16	-	20mm X 15mtr	-	
18	1	12V DC	CONTROL MONITOR DESK-2	-	CCTV MONITOR DESK-2	-	-	2 PAIR CABLE	1	-	-	-	-	Not required/Deleted	
	2	-		-		-	-								
	3	12V DC		-		-	-								-
	4	CAT6		-		-	-								-
19	1	LCWL-1A, LCWL-1B, LCWL-2A, LCWL-2B	CONTROL CUBICLE CAB-1	WIRE END FERRULE 1.5-8BK	Y	RADIATOR ROOM (ABOVE ROOF)	ICF/SK-7-2-52B,ITEM- 20-M5	Y	4GKW1.5	4	25	-	10mm X 24mtr (02 nos)	-	
20	1	RPM METER CAB-II (ENGINE 1& 2) 175, 176, SC#, 179, 180, SCR	CONTROL PANEL-I	WIRE END FERRULE 1.5-8BK	Y	CONTROL PANEL-II	ICF/SK-7-2-52B,ITEM- 20-M5	Y	2x1.5 SCR	2	30	-	-	-	
21	1	1636, 1638, 1646, 1648,SP1,SP2,	MOTOR SWITCH GROUP (ON BOARD)	ICF/SK-7-2-52B,ITEM- 20-M5	Y	LOAD METER (DESK-2 T.B CAB-2)	WIRE END FERRULE 2.5-12BU	Y	4GKW2.5	6	16	-	20mmX 15mtr	-	
22	1	337, 360	CONTROL CUBICAL-1	WIRE END FERRULE 2.5-12BU	Y	NVR BOX (CCTV)	WIRE END FERRULE 2.5-12BU	Y	4GKW2.5	2	6	-	20mmX5.5mtr	-	

JE/LDO

JE/LDO

W/Design

SSE/MPS-2

WM/Plg.

JE/ECS

SSE/ECS

AWM/ECS

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Scope of Supply of Harness cable for DETC

HARNESS CHART FOR POWER AND CONTROL (ON BOARD AND U/F) / DRG. NO. DETC/US-7-9-040

HARNESS NUMBER	S.NO	CABLE NUMBER	LOCATION	FROM			TO			CABLE SIZE (SQ. MM)	NUMBER OF CABLE	CABLE LENGTH (In mtr)	FLEXIBLE CONDUIT USAGE	CABLE JACKET USAGE	REMARKS
				LUG TYPE	Crimping status (Y/N)	LOCATION	LUG TYPE	Crimping status (Y/N)							
ON BOARD															
1	1	321, 330	MAIN RECTIFIER-1 BLOWER MOTOR (ON BOARD)	ICF/SK-7-2-166,CA/2	Y	STUD TB CONTROL PANEL-1 (CAB-1)	ICF/SK-7-2-166,CA/2	N	4GKW6	2	20	-	-	see schedule of supply (clause 2.5)	
	2	326, 340	MAIN RECTIFIER-1 BLOWER MOTOR (ON BOARD)	ICF/SK-7-2-166,CA/2	Y	STUD TB CONTROL PANEL-1 (CAB-1)	ICF/SK-7-2-166,CA/2	N	4GKW6	2	20	-	-		
2	1	P5,GO	MOTOR SWITCH GROUP (ON BOARD)	ICF/SK-7-2-166,D14/50	N	MAIN RECTIFIER-1	ICF/SK-7-2-166,D14/50	N	4GKW120	4	3.5	-	-	2 Cable for each cable number	
	2	P6,GO	MOTOR SWITCH GROUP (ON BOARD)	ICF/SK-7-2-166,D14/50	N	MAIN RECTIFIER-2	ICF/SK-7-2-166,D14/50	N	4GKW120	4	3.5	-	-	2 Cable for each cable number	
	3	GO	MOTOR SWITCH GROUP (ON BOARD)	ICF/SK-7-2-166,D8/50	N	GROUND FAULT RELAY (CONTROL PANEL-1 CAB-1)	ICF/SK-7-2-166,D8/32	N	4GKW25	1	19.5	-	-		
	4	1636, 1638,1646,1648	MOTOR SWITCH GROUP (ON BOARD)	ICF/SK-7-2-528-ITEM 20-M5	N	LOAD AMMETER (CONTROL PANEL-1 CAB-1)	WIRE END FERRULE 2.5-12BU	Y	4GKW2.5	4	22	-	-	see schedule of supply (clause 2.5)	
3	1	300, 301	ALTERNATER REGULATOR-1 (ON BOARD)	ICF/SK-7-2-166,D9/38	Y	CONTROL PANEL-1(CAB-1)	ICF/SK-7-2-166,D9/38	N	4GKW35	2	6.5	-	-		
	2	300, 302	ALTERNATER REGULATOR-2 (ON BOARD)	ICF/SK-7-2-166,D9/38	Y		ICF/SK-7-2-166,D9/38	N	4GKW35	2	8.5	-	-		
	3	200, 201	24V DC T.B (OBSERVATION ROOM)	ICF/SK-7-2-166,D12/38	N		ICF/SK-7-2-166,D12/38	N	4GKW70	4	9	-	-	2 Cable for each cable number	
	4	200, 201		ICF/SK-7-2-166,D14/38	Y	STARTER BATTERY CHARGER (OBSERVATION ROOM)	LEAD COATED D.H SOCKET EL/PT/0367, R2	N	4GKW120	2	2	-	-		
	5	437, 438	STARTER BATTERY CHARGER (OBSERVATION ROOM)	ICF/SK-7-2-528,ITEM 24-M6	N	230V AC TB CONTROL PANEL (CAB-1)	WIRE END FERRULE 2.5-12BU	Y	4GKW2.5	2	12	-	-		
4	1	1st END- REC-1 TB CONTROL PANEL-1 (CAB-1) 2nd END- RECTIFIER BOX-1 CONTORL TER. BOARD ON BOARD (SP,1814,SP,1816,SP,SP,1609,1642,SP,1701,1702,SP,1705,1706,SP,1802,SP,SP,320)	REC-1 TB CONTROL PANEL-1 (CAB-1)	-	-	RECTIFIER BOX-1 CONTORL TER. BOARD ON BOARD	-	-	4GKW2.5 X 19 CORE	1	17	-	-		
	2	1st END- REC-2 TB CONTROL PANEL-1 (CAB-1) 2nd END- RECTIFIER BOX-2 CONTORL TER. BOARD ON BOARD (SP,1815,SP,1817,SP,SP,1619,1643,SP,1703,1704,SP,1707,1708,SP,1802,SP,SP,320)	REC-2 TB CONTROL PANEL-1 (CAB-1)	-	-	RECTIFIER BOX-2 CONTORL TER. BOARD ON BOARD	-	-	4GKW2.5 X 19 CORE	1	17	-	-		
	3	1st END- MSG TB CONTROL PANEL-1 (CAB-1) 2nd END- MOTOR SWITCH GROUP (1,2,102,107,109,111,112,113,114,15,117,1624,1625,1626,1629,1632,1825,1802,SP)	MSG TB CONTROL PANEL-1 (CAB-1)	-	-	MOTOR SWITCH GROUP	-	-	4GKW2.5 X 19 CORE	1	18	-	-		
	4	320,SP1	-	WIRE END FERRULE 2.5-12BU	Y	MOTOR SWITCH GROUP	ICF/SK-7-2-528,ITEM 20-M5	N	4GKW2.5	2	22	-	-		
5	1	LH01 1A,LH01 1B	ENGINE-1 TB CONTROL PANEL-1 (CAB-1)	WIRE END FERRULE 2.5-12BU	Y	ENGINE-1 LH01 SENSOR HYDRAULIC TANK-1 ON BOARD	ICF/SK-7-2-528,ITEM 20-M5	N	4GKW2.5	2	21	-	-	see schedule of supply (clause 2.5)	
	2	2511H,240LH,SP1,SP2		WIRE END FERRULE 2.5-12BU	Y	ENGINE-1 LH01 SENSOR HYDRAULIC TANK-1 ON BOARD	ICF/SK-7-2-528,ITEM 20-M5	N	4GKW2.5	4	21	-	-		
	3	241, 292		WIRE END FERRULE 2.5-12BU	Y	ENGINE-1 HYDRAULIC OIL FLOW SW,TANK-1 ON BOARD	ICF/SK-7-2-528,ITEM 20-M5	N	4GKW2.5	2	21	-	-		

JE/LDO

JE/LDO

WM/Design

SSE/MP5-2

WM/Plg.

JE/EC5

SSE/EC5

AWM/EC5

39772/2024/HEP-CEE40700

7/2024/HFP-CEE40700				FROM		TO		CABLE SIZE (SQ. MM)	NUMBER OF CABLE	CABLE LENGTH (In mtr)	FLEXIBLE CONDUIT USAGE	CABLE JACKET USAGE	REMARKS	
NUMBER	SIZE	CABLE NUMBER	LOCATION	LUG TYPE	Crimping status (Y/N)	LOCATION	LUG TYPE							Crimping status (Y/N)
6	1	251, 254	ENGINE-2 TB CONTROL PANEL-1 (CAB-1)	WIRE END FERRULE 2.5-12BU	Y	ENGINE-1 HYDRAULIC OIL FLOW SW.TANK-2 ON BOARD	ICF/SK-7-2-528/ITEM 20-MS	N	4GKW2.5	2	21	-	-	-
7	1	E	EARTH LUG	ICF/SK-7-2-166-D12/38	Y	RECTIFIER-1 & 2	ICF/SK-7-2-166-D12/50	Y	4GKW70	4	0.5	-	-	-
	2	E		ICF/SK-7-2-166-D8/38	Y	REGULATOR-1 & 2	ICF/SK-7-2-166-D8/50	Y	4GKW25	4	0.5	-	-	-
	3	E		ICF/SK-7-2-166-D12/38	Y	MOTOR SWITCH GROUP	ICF/SK-7-2-166-D12/50	Y	4GKW70	2	0.5	-	-	-
ON BOARD TO UNDER FRAME														
8	1	R1,Y1,B1	MAIN RECTIFIER-1 (ON BOARD)	ICF/SK-7-2-166-D13/50	N	MAIN ALTERNATOR-1 (POWER PACK-1) U/F	ICF/SK-7-2-166-D13/50	Y	4GKW95	6	11	NW 29(DIA. 25mm METRIC THREAD) x 6 mtr	-	-
	2	R2,Y2,B2	MAIN RECTIFIER-2 (ON BOARD)	ICF/SK-7-2-166-D13/50	N	MAIN ALTERNATOR-2 (POWER PACK-1) U/F	ICF/SK-7-2-166-D13/50	Y	4GKW95	6	6	NW 23(DIA. 25mm METRIC THREAD) x 4 mtr	-	-
9	1	P1,P10A,P11,P15	MOTOR SWITCH GROUP (ON BOARD)	ICF/SK-7-2-166-D14/50	N	MOTOR CONNECTION BOX-1 (BELOW CAB-1) U/F	ICF/SK-7-2-604, ITEMS-120 DOUBLE HOLE	Y	4GKW120	4	16.5	NW 29(DIA. 32mm METRIC THREAD) x 5 mtr	-	-
	2	P3,P7,P12,P16	MOTOR SWITCH GROUP (ON BOARD)	ICF/SK-7-2-166-D14/50	N	MOTOR CONNECTION BOX-3 (BELOW CAB-1) U/F	ICF/SK-7-2-604, ITEMS-120 DOUBLE HOLE	Y	4GKW120	4	12.5	NW 29(DIA. 32mm METRIC THREAD) x 5 mtr	-	-
	3	P2,P8A,P13,P17	MOTOR SWITCH GROUP (ON BOARD)	ICF/SK-7-2-166-D14/50	N	MOTOR CONNECTION BOX-2 (BELOW CAB-2) U/F	ICF/SK-7-2-604, ITEMS-120 DOUBLE HOLE	Y	4GKW120	4	6	NW 29(DIA. 32mm METRIC THREAD) x 12 mtr	-	-
	4	P4,P9,P14,P18	MOTOR SWITCH GROUP (ON BOARD)	ICF/SK-7-2-166-D14/50	N	MOTOR CONNECTION BOX-4 (BELOW CAB-2) U/F	ICF/SK-7-2-604, ITEMS-120 DOUBLE HOLE	Y	4GKW120	4	9.5	NW 29(DIA. 32mm METRIC THREAD) x 12 mtr	-	-
10	1	R11,Y11,B11	REGULATOR CUM REC-1 (ON BOARD)	ICF/SK-7-2-166-D7/38	N	AUX.ALTERNATOR-1 JUNCTION BOX (POWER PACK-1)	ICF/SK-7-2-166-D7/38	N	4GKW16	3	13	NW 23(DIA. 25mm METRIC THREAD) x 4 mtr	-	-
	2	F1+F1-		F1- ICF/SK-7-2-166-CA/2 F1+ ICF/SK-7-2-166-CA/32	N		4GKW4	2	15	-	10mm x 14 mtr	-		
	3	R22,Y22,B22	REGULATOR CUM REC-2 (ON BOARD)	ICF/SK-7-2-166-D7/38	N	AUX.ALTERNATOR-2 JUNCTION BOX (POWER PACK-1)	ICF/SK-7-2-166-D7/38	N	4GKW16	3	15	NW 23(DIA. 25mm METRIC THREAD) x 4 mtr	-	-
	4	F2+F2-		F2- ICF/SK-7-2-166-CA/2 F2+ ICF/SK-7-2-166-CA/32	N		4GKW4	2	18	-	10mm x 17 mtr	-		
11	1	200, 201	24V DC BCS (Starter battery) (on Board)	ICF/SK-7-2-166-D8/32	Y	24V DC T.B (Observation Room)	ICF/SK-7-2-166-D8/38	Y	4GKW25	2	6	-	-	-
	2	431, 432,E	230 V AC TB CONTROL PANEL (CAB-1)	WIRE END FERRULE 2.5-12BU	Y	230V- SINGLE PHASE EXTERNAL CHARGING SOCKET-U/F	CF/SK-7-2-528, ITEM 20-MS	N	4GKW2.5	3	10	-	-	10 mm x 9 mtr
	3	200, 201	24V DC BATTERY CHARGER (STARTER BATTERY) (ON BOARD)	ICF/SK-7-2-166-D7/38	Y	24V DC T.B (Observation Room)	ICF/SK-7-2-166-D7/38	Y	4GKW16	2	8.5	-	-	-
ON BOARD TO UNDER FRAME														
12	1	202, 210	BIS SWITCH CONTROL PANEL-1 (CAB-1)	ICF/SK-7-2-166-D14/38	N	ENGINE-1 STARTER MOTOR	ICF/SK-7-2-166-D14/50	Y	4GKW120	2	12.5	NW 29(DIA. 32mm METRIC THREAD) x 4 mtr	-	-
	2	202, 210		ICF/SK-7-2-166-D14/38	N	ENGINE-1 STARTER MOTOR	ICF/SK-7-2-166-D14/50	Y	4GKW120	2	16.5	NW 29(DIA. 32mm METRIC THREAD) x 4 mtr	-	-
	3	211, 210	STUD TB CONTROL PANEL-1 (CAB-1)	ICF/SK-7-2-166-D8/32 OR D8/2	N	BATTERY CHARGING ALTERNATOR ENGINE-1	ICF/SK-7-2-166-D8/32	Y	4GKW25	2	12	NW17 (DIA. 20mm METRIC THREAD) x 4 mtr	-	-
	4	212, 210		ICF/SK-7-2-166-D8/32 OR D8/2	N	BATTERY CHARGING ALTERNATOR ENGINE-2	ICF/SK-7-2-166-D8/32	Y	4GKW25	2	15.5	NW17 (DIA. 20mm METRIC THREAD) x 4 mtr	-	-


JE/LDO


JE/LDO


WM/Design


SSE/MP5-2


WM/Plg.


JE/ECS


SSE/ECS


AWM/ECS

39772/2024/HEP-CEE40700

HARNESS NUMBER	S.NO	CABLE NUMBER	LOCATION	FROM		TO		Crimping status (Y/N)	CABLE SIZE (SQ. MM)	NUMBER OF CABLE	CABLE LENGTH (in mtr)	FLEXIBLE CONDUIT USAGE	CABLE JACKET USAGE	REMARKS
				LUG TYPE	Crimping status (Y/N)	LOCATION	LUG TYPE							
13	1	CONN.C9/1 (61-A) CONN.C9/2 (61-A) CONN.C9/3 (63-A) CONN.C9/5 (41-A) CONN.C9/6 (42-A) CONN.C9/13 (55-A) CONN.C9/15 (57-A) CONN.C9/16	C9 CONNECTOR ENGINE-1	-	-	ENGINE-1 TB CONTROL PANEL-1 (CAB-1)	-	-	1.5	17	14.6	-	-	Not required/Deleted
	2	CONN.C9/23 (45-A) CONN.C9/24 (46-A) CONN.C9/70 (52-A) SCR		-	-		-	-	2 X0.75 SCR	1	14.6	-	-	
	3	CONN.C9/7 (49-A) CONN.C9/8 (50-A) CONN.C9/11 (54-A) SCR		-	-	H/M RPM METER 1/1 CONTROL PANEL-1 (CAB-1)	-	-	2 X0.75 SCR	1	14.6	-	-	
	4	CONN.C9/27 (47-A) CONN.C9/29 (48-A) CONN.C9/11 (53-A) SCR		-	-	S.P.U-1 CONTROL PANEL-1 (CAB-1)	-	-	2 X0.75 SCR	1	14.6	-	-	
	5	CONN.C9/18 (43-A) CONN.C9/20 (44-A) CONN.C9/9 (51-A) SCR		-	-	LCC1 (MAGNATIC PICK UP 1/1) CONTROL PANEL-1 (CAB-1)	-	-	2 X0.75 SCR	1	14.6	-	-	
14	1	CONN.C9/1 (61-B) CONN.C9/2 (61-B) CONN.C9/3 (63-B) CONN.C9/5 (41-B) CONN.C9/6 (42-B) CONN.C9/13 (55-B) CONN.C9/15 (57-B) CONN.C9/16	C9 CONNECTOR ENGINE-1	-	-	ENGINE-2 TB CONTROL PANEL-1 (CAB-1)	-	-	4GKW1.5	17	19	-	-	
	2	CONN.C9/23 (45-B) CONN.C9/24 (46-B) CONN.C9/10 (52-B) SCR		-	-		-	-	2 X0.75 SCR	1	19	-	-	
	3	CONN.C9/7 (49-B) CONN.C9/8 (50-B) CONN.C9/11 (54-B) SCR		-	-	H/M RPM METER 2/1 CONTROL PANEL-1 (CAB-1)	-	-	2 X0.75 SCR	1	19	-	-	
	4	CONN.C9/27 (47-B) CONN.C9/29 (48-B) CONN.C9/11 (53-B) SCR		-	-	S.P.U-2 CONTROL PANEL-1 (CAB-1)	-	-	2 X0.75 SCR	1	19	-	-	
	5	CONN.C9/18 (43-B) CONN.C9/20 (44-B) CONN.C9/9 (51-B) SCR		-	-	LCC2 (MAGNATIC PICK UP 2/1) CONTROL PANEL-1 (CAB-1)	-	-	2 X0.75 SCR	1	19	-	-	
15	1	CONN.C10/A (64-A) CONN.C10/B (65-A) CONN.C10/D (67-A) CONN.C10/E (68-A) CONN.C10/C (66-A) CONN.C10/G (70-A) CONN.C10/H (71-A)	C10 CONNECTOR ENGINE-1	-	-	ENGINE-1 TB CONTROL PANEL-1 (CAB-1)	-	-	4GKW1.5	11	14.6	-	-	
	2	CONN.C10/M (75-A) CONN.C10/N (76-A) CONN.C10/P (77-A) SCR		-	-	LCC1 (ACTUATOR) CONTROL PANEL-1 (CAB-1)	-	-	2 X0.75 SCR	1	14.6	-	-	
16	1	CONN.C10/A (64-B) CONN.C10/B (65-B) CONN.C10/D (67-B) CONN.C10/E (68-B) CONN.C10/C (66-B) CONN.C10/G (70-B) CONN.C10/H (71-B)	C10 CONNECTOR ENGINE-2	-	-	ENGINE-2 TB CONTROL PANEL-1 (CAB-1)	-	-	4GKW1.5	11	19	-	-	
	2	CONN.C10/M (75-B) CONN.C10/N (76-B) CONN.C10/P (77-B) SCR		-	-	LCC2 (ACTUATOR) CONTROL PANEL-1 (CAB-1)	-	-	2 X0.75 SCR	1	19	-	-	


JE/LDO


JE/LDO


WM/Design


SSE/MPS-2


WM/Plg.


JE/ECS


SSE/ECS


AWM/ECS

Annexure 'A'

39772/2024/HEP-CEE40700

PANEL NUMBER	S.NO	CABLE NUMBER	LOCATION	FROM		Crimping status (Y/N)	TO		Crimping status (Y/N)	CABLE SIZE (SQ. MM)	NUMBER OF CABLE	CABLE LENGTH (In mtr)	FLEXIBLE CONDUIT USAGE	CABLE JACKET USAGE	REMARKS
				LUG TYPE	LUG TYPE		LOCATION	LUG TYPE							
17	1	226, 227, 228, 229	CONTROL PANEL-1 (CAB-1)	WIRE END FERRULE 2.5-12BU	N	N	LOCAL ON/OFF PB STATION ENGINE-1	ICF/SK-7-2-528, ITEM-20- M5	Y	4GKW2.5	4	12	-	-	see schedule of supply (clause 2.5)
	2	234, 235, 237, 236	D-BOARD & E-BOARD CONTROL PANEL-1	WIRE END FERRULE 2.5-12BU	N	N	LOCAL ON/OFF PB STATION ENGINE-2	ICF/SK-7-2-528, ITEM-20- M5	Y	4GKW2.5	4	19	-	-	
18	1	1744, 320	D-BOARD & E-BOARD CONTROL PANEL-1	WIRE END FERRULE 2.5-12BU	N	N	UNLOADER MAGNETIC VALVE(1)	ICF/SK-7-2-528, ITEM-20- M5	Y	4GKW2.5	2	22	-	-	see schedule of supply (clause 2.5)
	2	1744, 320	D-BOARD & E-BOARD CONTROL DESK-2	WIRE END FERRULE 2.5-12BU	N	N	UNLOADER MAGNETIC VALVE(2)(U/F)	ICF/SK-7-2-528, ITEM-20- M5	Y	4GKW2.5	2	6	-	-	
	3	102, 103	MSG TB & CONTROL TB CONTROL PANEL-1 (CAB-1)	WIRE END FERRULE 2.5-12BU	N	N	EQUIPMENT GOV. (U/F)	ICF/SK-7-2-528, ITEM-23- M4	Y	4GKW2.5	2	25	-	-	
19	1	1676 (+)	LCC1 TB CONTROL PANEL-1 (CAB-1)	WIRE END FERRULE 2.5-12BU	N	N	MAIN ALTERNATOR -1 EXCITER RESISTOR-1 (U/F)	ICF/SK-7-2-528, ITEM-20- M5	Y	4GKW2.5	1	21	-	-	see schedule of supply (clause 2.5)
	2	1678 (-)		WIRE END FERRULE 2.5-12BU	N	N	MAIN ALTERNATOR -1 (U/F)	ICF/SK-7-2-528, ITEM-20- M5	Y	4GKW2.5	1	21	-	-	
20	1	1686 (+)	LCC2 TB CONTROL PANEL-1 (CAB-1)	WIRE END FERRULE 2.5-12BU	N	N	MAIN ALTERNATOR -2 EXCITER RESISTOR-2 (U/F)	ICF/SK-7-2-528, ITEM-20- M5	Y	4GKW2.5	1	21	-	-	
	2	1688 (-)		WIRE END FERRULE 2.5-12BU	N	N	MAIN ALTERNATOR -2 (U/F)	ICF/SK-7-2-528, ITEM-20- M5	Y	4GKW2.5	1	21	-	-	
21	1	307, 300	EQUIPMENT PANEL (U/F)	ICF/SK-7-2-166, DB/32	Y	Y	CONTROL CUBICAL ON BOARD	ICF/SK-7-2-166, DB/32	N	4GKW25	2	8	-	-	-
	2	308, 300		ICF/SK-7-2-166, DB/32	Y	Y	BATTERY BOX CONT. BATTERY ON BOARD	ICF/SK-7-2-166, DB/32	N	4GKW25	2	7	-	-	-
	3	309		ICF/SK-7-2-166, DB/32	Y	Y	300A CONT. SW CONTROL CUBICAL-1 ON BOARD	ICF/SK-7-2-166, DB/32	N	4GKW25	1	9	-	-	-
22	1	1741, 1743, 320	B-BOARD & E-BOARD CONTROL PANEL-1 (CAB-1)	WIRE END FERRULE 2.5-12BU	N	N	AIR DRIER JB (U/F)	WIRE END FERRULE 2.5-12BU	Y	4GKW2.5	3	22	-	-	see schedule of supply (clause 2.5)
23	1	E	BATTERY CHARGER (STARTER BATTERY) (ON BOARD)	ICF/SK-7-2-528, ITEM-20- M5	Y	Y	EARTH	ICF/SK-7-2-528, ITEM-20- M5	Y	4GKW2.5	1	0.5	-	-	-
24	1	309, 300	EQUIPMENT PANEL (UNDER FRAME)	ICF/SK-7-2-166, DB/32	Y	Y	CONT. BATT. BATTERY CHARGING SOCKET	ICF/SK-7-2-166, DB/32	N	4GKW25	2	15	-	-	-
	2	371, 300		ICF/SK-7-2-528, ITEM-20- M5	Y	Y	HLS-1 (U/F)	ICF/SK-7-2-528, ITEM-20- M5	Y	4GKW2.5	2	8	-	10mm x 3.5 mtr	-
	3	371, 300		ICF/SK-7-2-528, ITEM-20- M5	Y	Y	HLS-2 (U/F)	ICF/SK-7-2-528, ITEM-20- M5	Y	4GKW2.5	2	14	-	10mm X 13.5 mtr	-
	4	371		ICF/SK-7-2-528, ITEM-20- M5	Y	Y	EQUIP. PANEL 10A FUSE	ICF/SK-7-2-528, ITEM-20- M5	N	4GKW2.5	1	8	-	-	-
	5	307	EQUIPMENT PANEL (UNDER FRAME)	ICF/SK-7-2-528, ITEM-14- M12	Y	Y	EQUIP. PANEL 10A FUSE	ICF/SK-7-2-528, ITEM-14-M12	N	4GKW2.5	1	0.5	-	-	-
	6	300	BATTERY CHARGING SOCKET (BCS)	ICF/SK-7-2-528, ITEM-14- M12	Y	Y	EQUIP. PANEL	ICF/SK-7-2-528, ITEM-20- M5	N	4GKW2.5	1	0.5	-	-	-

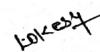

JE/LDO


JE/LDO


WM/Design


SSE/MPS-2


WM/Plg


JE/ECS


SSE/ECS


AWM/ECS

Annexure 'A'

39772/2024/HEP-CEE40700

7212024/HEP-CEE40700																	
ITEM NUMBER	S.NO	CABLE NUMBER	LOCATION	FROM				TO				CABLE SIZE (SQ.MM)	NUMBER OF CABLE	CABLE LENGTH (In mtr)	FLEXIBLE CONDUIT USAGE	CABLE JACKET USAGE	REMARKS
				LUG TYPE	Crimping status (Y/N)	LOCATION	LUG TYPE	Crimping status (Y/N)									
25	1	1677 (+), 1678 (-)	MAIN ALTERNATOR EXCITER RESISTER-1 (U/F)	ICF/SK-7-2-528, ITEM-20 M5	Y	MAIN ALTERNATOR-1 (U/F)	ICF/SK-7-2-528, ITEM-20- M5	Y	4GKW2.5	2	14	-	-	10mm X 13.5 mtr	-		
	2	1687 (+), 1688 (-)	MAIN ALTERNATOR EXCITER RESISTER-2 (U/F)	ICF/SK-7-2-528, ITEM-20 M5	Y	MAIN ALTERNATOR-2 (U/F)	ICF/SK-7-2-528, ITEM-20- M5	Y	4GKW2.5	2	10	-	-	10mm X 13.5 mtr	-		
26	1	1741, 1743, 320	AIR DRIER JB	WIRE END FERRULE 1.5-8BK	Y	AIR DRIER	WIRE END FERRULE 1.5-8BK	Y	4GKW2.5	3	21	-	-	-	-		
27	1	P1, P10A, P11, P15, E	TRACTION MOTOR-1	-	-	MOTOR CONNECTION BOX-1	ICF/SK-7-2-037, ITEM-1	N	4GKW150	5	-	NW 29(DIA. 32mm METRIC THREAD) x 0.5 mtr	-	-	Only Lug required (20 Nos)		
	2	P3, P7, P12, P16, E	TRACTION MOTOR-2	-	-	MOTOR CONNECTION BOX-2	ICF/SK-7-2-037, ITEM-1	N		5	-		-				
	3	P2, P8A, P13, P17, E	TRACTION MOTOR-3	-	-	MOTOR CONNECTION BOX-3	ICF/SK-7-2-037, ITEM-1	N		5	-		-				
	4	P4, P9, P14, P18, E	TRACTION MOTOR-4	-	-	MOTOR CONNECTION BOX-4	ICF/SK-7-2-037, ITEM-1	N		5	-		-				
	5	E	EARTHING	ICF/SK-7-2-166, D14/50	Y	TM1 EARTH AT MC BOX-1	ICF/SK-7-2-604, ITEM3-120 DOUBLE HOLE	Y	4GKW120	1	1	NW 29(DIA. 32mm METRIC THREAD) x 0.5 mtr	-	-	-		
	6	E		ICF/SK-7-2-166, D14/50	Y	TM2 EARTH AT MC BOX-1	ICF/SK-7-2-604, ITEM3-120 DOUBLE HOLE	Y		1	1		-	-	-		
	7	E		ICF/SK-7-2-166, D14/50	Y	TM3 EARTH AT MC BOX-1	ICF/SK-7-2-604, ITEM3-120 DOUBLE HOLE	Y		1	1		-	-	-		
	8	E		ICF/SK-7-2-166, D14/50	Y	TM4 EARTH AT MC BOX-1	ICF/SK-7-2-604, ITEM3-120 DOUBLE HOLE	Y		1	1		-	-	-		
28	1	E	EARTH LUG	ICF/SK-7-2-166, D12/38	Y	EQUIP. PANEL	ICF/SK-7-2-166, D12/38	Y	4GKW25	1	0.5	-	-	-	-		
	2	E		ICF/SK-7-2-166, D12/38	Y	M. C BOX (1-4)	ICF/SK-7-2-166, D12/38	Y	4GKW70	4	0.5	-	-	-	-		


JE/LDO


JE/LDO


WM/Design


SSE/MPS-2


WM/Plg.


JE/ECS


SSE/ECS


AWM/ECS

39772/2024/HEP-CEE40700

SCOPE OF SUPPLY OF HARNESS CABLE FOR DETC

HARNESS CHART FOR CAB-1 & 2 AND DESK-1 & 2 / DRG. NUMBER DETC/US-7-0-046

HARNESS NUMBER		S.NO	CABLE NUMBER	LOCATION	FROM	LUG TYPE	Crimping status (Y/N)	LOCATION	LUG TYPE	Crimping status (Y/N)	CABLE SIZE (SQ.MM)	NUMBER OF CABLES	CABLE LENGTH (in mtr)	FLEXIBLE CONDUIT USAGE	CABLE JACKET USAGE	REMARKS	
CONTROL PANEL-1 TO DESK-1 HARNESS(CAB-1)																	
1	1	1ST END - CON-18 2ND END - 5B (1,2,SP,3,4,5,6,7,1731,1654,1655,1657,1614,1658,1656,2014,1632,1802,350A)	A-BOARD CONTROL PANEL-1	-	-	-	-	A- BOARD DRIVER DESK-1	-	-	4GKW2.5 X 19 CORE	1	2.9	-	-	40mm X 2.7mtr	-
	2	1ST END - 19A 2ND END - 4B (311,311,311,322,322,1741,1743,1732,1735,1601,2015,1723,1724,1736,CS+,F+, L+,2016,1830)	B-BOARD CONTROL PANEL-1	-	-	-	-	B- BOARD DRIVER DESK-1	-	-	4GKW2.5 X 19 CORE	1	2.6	-	-	40mm X 2.4mtr	-
	3	1ST END - 20 2ND END - 15B (1804,1805,1806,1807,SP,1808,1809,1811,1812,1814,1815,SP,1816,1817,1819,1820,1821,1822,1823)	C-BOARD CONTROL PANEL-1	-	-	-	-	C- BOARD DRIVER DESK-1	-	-	4GKW2.5 X 19 CORE	1	2.4	-	-	40mm X 2.2mtr	-
	4	1ST END - 21 2ND END - 16B (1824,1961,1825,1827,1831,1834,1835,1744,1836,1838,1962,1840,1841,1845,1846,255,350B,202,1734)	D-BOARD CONTROL PANEL-1	-	-	-	-	D- BOARD DRIVER DESK-1	-	-	4GKW2.5 X 19 CORE	1	2.4	-	-	40mm X 2.2mtr	-
	5	1ST END - 22A 2ND END - 7B 320,320,320,320,F-,L-,SP,290,296,SP,SP,380,SP,HL-,370,210,SP,360,CS-	E-BOARD CONTROL PANEL-1	-	-	-	-	E- BOARD DRIVER DESK-1	-	-	4GKW2.5 X 19 CORE	1	2.7	-	-	40mm X 2.5mtr	-
	6	1ST END - 23 2ND END - 10 1651,1610 ,1801,SP,1721,1800,1602,1636,1638,1646,SP,1962,103,104,105,SP,251,253	CONTROL T.B CONTROL PANEL-1	-	-	-	-	CONTROL T.B DRIVER DESK-1	-	-	4GKW2.5 X 19 CORE	1	2.7	-	-	40mm X 2.5mtr	-
	7	1ST END - 24 2ND END - 11 342,349,313,327,375,345,346,351,356,338,SP,SP,SP,SP,SP,SP,SP,SP,202,255	AUX T.B CONTROL PANEL-1	-	-	-	-	AUX T.B DRIVER DESK-1	-	-	4GKW2.5 X 19 CORE	1	2.5	-	-	40mm X 2.2mtr	-
2	1	12v dc	Control panel -1 NVR (cab-1)	-	-	-	-	CCTV monitor desk -1	-	-	2 pair cable	1	-	-	-	10mm X 7mtr	Only cable jacket required
	2			-	-	-	-		-	-	coaxial cable	1	-	-	-	10mm X 7mtr	
3	1	378, 390	STUD T.B CONTROL PANEL -1	CA/2	N			CAB HEATER UNIT -1 CONTROL UNIT DESK-1	CA/2	N	4GKW6	2	5	-	-	10mm X 4.2mtr	-
WITH IN CONTROL PANEL -1																	
4	1	337, 360	AUX T.B & E-BOARD CONTROL PANEL-1	WIRE END FERRULE 2.5-12BU	Y			110V/2V DC CONVERTER CONT. PANEL-1 (CCTV)	WIRE END FERRULE 2.5-12BU	Y	4GKW2.5	2	6	-	-	10mm X 5.5mtr	-
5	1	11,12,SP,13,14,1701,1702,1705,1706,131,1676,134,1674,1670,130,130,1678,241,246	LCC GOVERNER-1 (CONTROL PANEL-1)	WIRE END FERRULE PIN TYPE CP27	N			LCC-1 TB (CONTROL PANEL-1)	WIRE END FERRULE PIN TYPE CP27	N	4GKW1.5	19	-	-	-	-	Only cable lug required
	2	1927, 2028		WIRE END FERRULE PIN TYPE CP27	N			INTERNAL LOOP	ICF/SK-7-2-166,CA/0	N	2 X2.5 SCR	1	-	-	-	-	
6	1	15,16,SP,13A,14A,1703,1704,1707,1708,141,1686,144,1684,1680,140,140,1688,261,266	LCC GOVERNER-2 (CONTROL PANEL-1)	WIRE END FERRULE PIN TYPE CP27	N			LCC-2 TB (CONTROL PANEL-1)	WIRE END FERRULE PIN TYPE CP27	N	4GKW1.5	19	-	-	-	-	
	2	1928, 2029		WIRE END FERRULE PIN TYPE CP27	N			INTERNAL LOOP	ICF/SK-7-2-166,CA/0	N	2 X2.5 SCR	1	-	-	-	-	
7	1	346,360,HL-,345	AUX. TB-1 & -VE T.B CONTROL PANEL-1	WIRE END FERRULE PIN TYPE CP27	Y			HEAD LIGHT DC/DC CONVERTER	ICF/SK-7-2-528,M6	Y	4GKW2.5	4	4	-	-	-	-
	2	360, 356,351,370	CONTROL PANEL-1	WIRE END FERRULE PIN TYPE CP27	Y			FLASHER UNIT	ICF/SK-7-2-528,M4	Y	4GKW2.5	4	4	-	-	-	-


JE/LDO


JE/LDO


WM/Design


SSE/MPS-2


WM/Plg.


JE/ECS


SSE/ECS


AWM/ECS

39772/2024/HEP-CEE40700

9/7/2024/HEP-CEE40700		FROM		TO											
LINE NO.	ITEM NO.	LOCATION	LUG TYPE	Crimping status (Y/N)	LOCATION	LUG TYPE	Crimping status (Y/N)	CABLE SIZE (SQ. MM)	NUMBER OF CABLES	CABLE LENGTH (in mtr)	FLEXIBLE CONDUIT USAGE	CABLE JACKET USAGE	REMARKS		
CONTROL PANEL-B TO DESK-2 HARNESS (CAB-2)															
8	1	1ST END - 30A 2ND END - 198 (311,311,311,322,322,1741,1743,1732,1735,1601,2015,1723,1724,1726,C5A-F, 2016,1890)	-	-	B-BOARD DRIVER DESK-2	-	-	4GKW2.5 X 19 CORE	1	2.3	-	40mm X 2mtr	-		
	2	1ST END - 30B 2ND END - 23 (1651,1610,1801,SP,1721,1800,1602,SP,SP,SP,SP,1962,103,104,105,SP,251,253)	-	-	CONTROL T.B DRIVER DESK-2	-	-	4GKW2.5 X 19 CORE	1	2.3	-	40mm X 2mtr	-		
9	1	1ST END - 31 2ND END - 24 (342,349,313,327,375,345,346,351,356,338,SP,SP,SP,SP,SP,SP,202,255)	-	-	AUX-TB CONTROL DESK-2	-	-	4GKW2.5 X 19 CORE	1	2.3	-	40mm X 2mtr	-		
	2	1ST END - 32 2ND END - 22B (320,320,320,320,F,1-SP,290,296,SP,SP,380,SP,380,SP,HL-370,210,SP,360,C5)	-	-	E-BOARD DRIVER DESK-2	-	-	4GKW2.5 X 19 CORE	1	2.4	-	40mm X 2mtr	-		
10	1	378, 390	STUD T.B CONTROL PANEL-2	ICF/SK-7-2-166, C4/2	N	CAB HEATER UNIT -1 CONTROL UNIT DESK-2	ICF/SK-7-2-166, C4/2	Y	4GKW6	2	5	-	10mm X 4mtr	-	
WITH IN CONTROL PANEL-2															
11	1	346,360,HL-345	AUX. TB & -VE T.B CONTROL PANEL-2	WIRE END FERRULE PIN TYPE CP27	Y	HEAD LIGHT DC/DC CONVERTER	ICF/SK-7-2-528,ITEM-24-M4	Y	4GKW2.5	4	4	-	-	-	
	2	360, 356,351,370	CONTROL CUBICAL -2	WIRE END FERRULE PIN TYPE CP27	Y	FLASHER UNIT	ICF/SK-7-2-528,ITEM-23-M4	Y	4GKW2.5	4	4	-	-	-	
DESK-1 HARNESS															
12	1	1723,320,	B & E BOARD DESK-1	WIRE END FERRULE 2.5-12BU	Y	PARKING BRAKE APPLY MAG. VALVE	ICF/SK-7-2-528,ITEM-20-M5	Y	4GKW2.5	2	4.5	-	10mm X 4mtr	-	
	2	1724,320,		WIRE END FERRULE 2.5-12BU	Y	PARKING BRAKE RELEASE MAG. VALVE	ICF/SK-7-2-528,ITEM-20-M5	Y		2	4.5	-	10mm X 4mtr	-	
	3	1735,320,		WIRE END FERRULE 2.5-12BU	Y	DEAD MAN MAG VALVE	ICF/SK-7-2-528,ITEM-20-M5	Y		2	4.5	-	10mm X 4mtr	-	
	4	103,104,		CONTROL TB DESK-1	WIRE END FERRULE 2.5-12BU	Y	BP GOV	ICF/SK-7-2-528,ITEM-23-M4		Y	2	4.5	-	10mm X 4mtr	-
	5	104, 105, 1802, 1823		CONTROL TB A & C BOARD DESK-1	WIRE END FERRULE 2.5-12BU	Y	PARKING BRAKE GOV	ICF/SK-7-2-528,ITEM-23-M4		Y	4	4.5	-	20mm X 4mtr	-
	6	342, 344		AUX. TB CONT. TB DESK-1	WIRE END FERRULE 2.5-12BU	Y	FOOT OPERATED HORN PUSH BUTTON	ICF/SK-7-2-528,ITEM-23-M4		Y	2	5.5	-	10mm X 5mtr	-
	7	344, 360		CONT. TB E-BOARD DESK-1	WIRE END FERRULE 2.5-12BU	Y	HORN MAGNET VALVE	ICF/SK-7-2-528,ITEM-20-M5		N	2	4.5	-	10mm X 4mtr	-
13	1	338,360, POWER CONNECTOR	AUX. TB AND E BOARD DESK-1	-	-	25KV AC HIGH VOLTAGE CONTROLLER CUM POWER SUPPLY UNIT (DESK-3)	-	-	2 CORE CABLE	1	-	-	10mm X 2.4mtr	Only cable jacket required	
	2	HVD	25KV AC HIGH VOLTAGE CONTROLLER CUM POWER SUPPLY UNIT (DESK-1)	-	-	25 KV AC ON DISPLAY UNIT (DESK-1)	-	-	5 COREx1.55CR	1	-	-	-		
	3	HV	HV ANTENNA ABOVE ROOF (CAB-1)	-	-	25KV AC HIGH VOLTAGE CONTROLLER CUM POWER SUPPLY UNIT (DESK-1)	-	-	2 COREx1.55CR	1	-	-	-		
14	2	342, 360	SPEEDOMETER (POWER SUPPLY CABLE)	WIRE END FERRULE 1.5-8BK	Y	AUX. TB AND E BOARD DESK-1	-	-	4GKW1.5	1	5.5	-	-	-	
15	1	8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,5, P1, SP3, SP4	CAB HEATER UNIT-1 CONTROL UNIT DESK-1	-	-	INDICATION PANEL CAB HEATER UNIT-1	-	-	22	-	-	-	-	Only cable jacket required	
	2	26,27,28	-	-	-	TWMP. SENSOR OUTSIDE DRIVERS CAB	-	-	3	-	-	-	20mm x 3mtr		


AWM/EC

39772/2024/HEP-CEE40700

07/2024/HEP-CEE40700		FROM	TO											
LOCATION		LUG TYPE	Crimping status (Y/N)	LOCATION	LUG TYPE	Crimping status (Y/N)	CABLE SIZE (SQ MM)	NUMBER OF CABLES	CABLE LENGTH (in mtr)	FLEXIBLE CONDUIT USAGE	CABLE JACKET USAGE	REMARKS		
DESK-1 PERIPHERAL LIGHTING														
16	1	HL100	HEAD LIGHT	ICF/SK-7-2-528, ITEM-24-M6	Y	AUXTB-1 (DESK)	WIRE END FERRULE 2.5-12BU	Y	4GKW2.5	1	7.5	-	10mm X 6mtr	-
	2	HL90		ICF/SK-7-2-528, ITEM-24-M6	Y	AUXTB-1 (DESK)	WIRE END FERRULE 2.5-12BU	Y		1	7.5	-	10mm X 6mtr	-
	3	HL-		ICF/SK-7-2-528, ITEM-24-M6	Y	E-BOARD (DESK)	WIRE END FERRULE 2.5-12BU	Y		1	7.5	-	10mm X 6mtr	-
	4	356	FRONT FLASHER LIGHT	ICF/SK-7-2-528, ITEM-20-M5	Y	AUXTB-1 (DESK)	WIRE END FERRULE 2.5-12BU	Y		1	5.5	-	10mm X 5mtr	-
	5	370		ICF/SK-7-2-528, ITEM-20-M5	Y	E-BOARD (DESK)	WIRE END FERRULE 2.5-12BU	Y		1	5.5	-	10mm X 5mtr	-
	6	252, 290(-VE)	FOG LIGHT	ICF/SK-7-2-528, ITEM-20-M5	Y	CONTROL T.B DRIVER DESK-1 & E-BOARD DRIVER DESK-2	WIRE END FERRULE 2.5-12BU	Y		2	3.5	-	10mm X 3mtr	-
	7	254, 290(-VE)	SEARCH LIGHT	ICF/SK-7-2-528, ITEM-20-M5	Y		WIRE END FERRULE 2.5-12BU	Y		2	5.5	-	10mm X 5mtr	-
	8	358, 360(-VE)	MARKER LIGHT(L)	ICF/SK-7-2-528, ITEM-23-M4	Y	AUX T.B DRIVER DESK-2 & E-BOARD DRIVER DESK-2	WIRE END FERRULE 2.5-12BU	Y		2	4.5	-	10mm X 4mtr	-
	9	358, 360(-VE)	MARKER LIGHT(R)	ICF/SK-7-2-528, ITEM-23-M4	Y		WIRE END FERRULE 2.5-12BU	Y		2	4.5	-	10mm X 4mtr	-
	10	357, 360(-VE)	TAIL LIGHT(L)	ICF/SK-7-2-528, ITEM-20-M5	Y		WIRE END FERRULE 2.5-12BU	Y		2	4.5	-	10mm X 4mtr	-
	11	357, 360(-VE)	TAIL LIGHT(R)	ICF/SK-7-2-528, ITEM-20-M5	Y		WIRE END FERRULE 2.5-12BU	Y		2	4.5	-	10mm X 4mtr	-
17	1	1,2	CAB HEATER UNIT-1CONTROL UNIT DESK-1	WIRE END FERRULE 2.5-12BU	Y	HEATER CAB HEATER UNIT-1 (ABOVE CONT. PANEL-1)	WIRE END FERRULE 2.5-12BU	Y	4GKW4	2	12	-	20mm X 10mtr	-
	2	3,4		WIRE END FERRULE 2.5-12BU	Y	BLOWER CAB HEATER UNIT-1 (ABOVE CONT. PANEL-1)	WIRE END FERRULE 2.5-12BU	Y	4GKW2.5	2	12	-	10mm X 10mtr	-
	3	5,6,SP1,SP2		WIRE END FERRULE 2.5-12BU	Y	THERMOSTAT CAB HEATER UNIT-1 (ABOVE CONT. PANEL-1)	WIRE END FERRULE 2.5-12BU	Y	4GKW2.5	4	12	-	20mm X 10mtr	-
DESK-2 HARDNESS														
18	1	1741, 7143	COMPRESSOR GOVERNER	ICF/SK-7-2-528,ITEM-23-M4	Y	B-BOARD (DESK-2)	WIRE AND FERRULE PIN TYPE -CP27	Y	4GKW2.5	2	4.5	-	10mm X 4mtr	-
		1744		ICF/SK-7-2-528,ITEM-23-M4	Y	D-BOARD (DESK-2)	WIRE AND FERRULE PIN TYPE -CP27	Y	4GKW2.5	1	4.5	-	10mm X 4mtr	-
	2	342, 344	AUX TB CONT. T.B,DESK-2	WIRE AND FERRULE PIN TYPE -CP27	Y	FOOT OPRETION HORN PUSH BUTTON	ICF/SK-7-2-528,ITEM-23-M4	Y	4GKW2.5	2	5.5	-	10mm X 4mtr	-
	3	344, 360	CONT. T.B & E-BOARD DESK-2	WIRE END FERRULE PIN TYPE -CP27	Y	HORN MAGNET VALVE	M5	Y	4GKW2.5	2	4.5	-	10mm X 4mtr	-
19	1	338,360 POWER CONNECTOR	AUX TB & E-BOARD DESK-2	WIRE END FERRULE 1.5-8BK	N	25 KV AC HIGH VOLTAGE CONTROLLER CUM POWER SUPPLY UNIT (DESK-2)	WIRE END FERRULE 1.5-8BK	N	2 CORE CABLE	1	-	-	-	Only lug required
	2	HVD	25 KV AC HIGH VOLTAGE CONTROLLER CUM POWER SUPPLY UNIT (DESK-2)	-	-	25 KV AC ON DISPLAY UNIT DESK-2	-	-	5 CORE X 1.5 SCR	1	-	-	-	Not required/Deleted
	3	HV	H.V ANTENNA ABOVE ROOF(CAB-2)	-	-	25 KV AC HIGH VOLTAGE CONTROLLER CUM POWER SUPPLY UNIT (DESK-2)	-	-	2 CORE X 1.5 SCR	1	-	-	-	


JE/LDO

JE/LDO

WM/Design


SSE/MPS-2

WM/Plg.

Lokesh
JE/ECS

SSE/CS

AWM/ECS

[Signature]
JE/LDO


JE/LDO

WM/Design


SSE/MPS-2




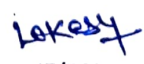




WM/Plg.

Lokesh
JE/ECS




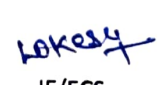





SSE/ECS


AWM/EC




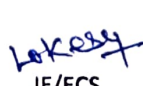




SN	DESCRIPTION	UNIT	Qty Required in loose	Remarks
1	CRIMPING SOCKET TO DRG. NO.ICF/SK-7-2-166, TYPE C4/32	Nos.	9	-
2	CRIMPING SOCKET TO DRG. NO.ICF/SK-7-2-528/ITEM-24	Nos.	4	-
3	Solderless Crimping Socket to Drg. No.ICF/SK-7-2-166 BEND 5 DEG Type-D9/38	Nos.	5	-
4	CRIMPING SOCKET TO DRG. NO.ICF/SK-7-2-166 TYPE D 8/2.	Nos.	5	-
5	CRIMPING SOCKET TO DRG.NO.ICF/SK-7-2-166, TYPE D8/32	Nos.	14	-
6	SOLDERLESS CRIMPING SOCKET BEND 5 DEG TYPE D7/32 TO DRG. NO.ICF/SK-7-2-166	Nos.	3	-
7	CRIMPING SOCKET TO DRG. NO.ICF/SK-7-2-166 TYPE-D7/38	Nos.	14	-
8	CRIMPING SOCKET TO DRG. NO.ICF/SK-7-2-166, ALT-W TYPE C4/0.	Nos.	3	-
9	CRIMPING SOCKET TO DRG. NO.ICF/SK-7-2-166, TYPE D8/38	Nos.	1	-
10	CRIMPING SOCKET TO DRG. NO.ICF/SK-7-2-166, TYPE D13/50	Nos.	14	-
11	CRIMP SOCKET TO DRG. NO. ICF/SK-7-2-528 ALT.Z ITEM 20. MAKE : ASCON	Nos.	28	-
12	CRIMPING SOCKET TO DRG.NO.ICF/SK3-7-2-037, ITEM-1	Nos.	22	-
13	CRIMPING SOCKET DRG. NO. ICF/SK-7-2-166 TYPE C4/2, BEND-5 DEG. ALT 'W'. MAKE : ASCON	Nos.	10	-
14	CRIMPING SOCKET TO DRG. NO.ICF/SK-7-2-166, TYPE D8/50	Nos.	2	-
15	SOLDER LESS CRIMPING SOCKET TO DRG.NO.ICF/SK 7-2-604, ITEM 3	Nos.	2	-
16	SOLDERLESS CRIMPING TERMINAL DRG.NO.ICF/SK-7-2-166 ,TYPE-C 6/32, BEND-5 DEG.	Nos.	5	-
17	CRIMPING SOCKET TO DRG.NO.ICF/SK-7-2-528 , ITEM 14	Nos.	2	-
18	Solderless Crimping Socket to Drg. No.ICF/SK-7-2-166, Type-D12/50, BEND 5 Deg.	Nos.	6	-
19	SOLDERLESS CRIMPING SOCKET BEND 5, TYPE D14/50 TO DRG. NO.ICF/SK-7-2-166.	Nos.	40	-

 JE/LDO	 JE/LDO	 SSE/MPs-2	 JE/ECS	 SSE/ECS
 WM/Design	 WM/Plg.	 AWM/ECS		

SN	DESCRIPTION	UNIT	Qty Required In loose	Remarks
20	Solderless Crimping Socket to Drg. No.ICF/SK-7-2-166, BEND 5 DEG Type D12/38	Nos.	10	-
21	Solderless Crimping Socket to Drg. No.ICF/SK-7-2-166, BEND 5 DEG. Type-D7/0.	Nos.	3	-
22	SOLDERLESS CRIMPING TERMINALS D14/38 BEND 5 DEG TO DRG. NO.ICF/SK-7-2-166.	Nos.	5	-
23	FLEXIBLE CONDUIT NW23 (DIA 25 MM METRIC THREADS)	Mtrs	84	To be supplied in rolls
24	UNF FLEXIBLE CONDUIT NW29 DIA 32 MM	Mtrs	46	
25	FLEXIBLE CONDUIT NW17 DIA 20 MM	Mtrs	59	
26	UNF FLEXIBLE CONDUIT NW 48 DIA 50 MM	Mtrs	3	
27	U WIRE END INSULATED FERRULE AI2.5-12BU	Nos.	86	-
28	U WIRE END INSULATED FERRULE AI1.5-8BK	Nos.	27	-
29	WIRE END FERRULE PIN TYPE CP27	Nos.	101	-
30	CABLE JACKET 10 mm	Mtrs	90	To be supplied in rolls
31	CABLE JACKET 20 mm	Mtrs	41	
32	CABLE JACKET 40 mm	Mtrs	46.3	
33	CRIMPING SOCKET DRG.NO.ICF/SK-7-2-528/ ITEM-23	Nos.	28	-
34	UNF STRAIGHT CONNECTOR DIA 40 MM	Nos.	11	-
35	UNF STRAIGHT CONNECTOR DIA 25 MM	Nos.	22	-
36	UNF END FITTING STRAIGHT NW 29 DIA 32 MM	Nos.	11	-
37	UNF FLEXIBLE CONDUIT NW 36 DIA 40 MM	Mtrs	22	-
38	LEAD COATED DOUBLE HOLE SOCKET	Nos.	3	-
39	SHRINKDOWN SLEEVE 6.4 X 0.28 PE5	Mtrs	4.5	-
40	SHRINKDOWN SLEEVE 12.7 X 0.28 PE5	Mtrs	3	-
41	ADHESIVE SHRINKDOWN SLEEVE 24/6	Mtrs	1.5	-
42	SHRINKDOWN SLEEVE 25.4 X 0.38 PE5	Mtrs	4	-
43	Hex Head Screw M8 x 20	Nos.	18	
44	Hex Head Screw M12 x 25	Nos.	73	
45	Hex Head Screw M10 x 25	Nos.	11	
46	Plain Washer M8	Nos.	18	
47	Plain Washer M10	Nos.	11	
48	Plain Washer M12	Nos.	73	
49	Spring Washer B8	Nos.	18	
50	Spring Washer B10	Nos.	11	
51	Spring Washer B12	Nos.	73	
52	U-set of Nylon Cable tie 400x7.87 mm	Set	8	
53	U-set of Nylon Cable tie 300x7.87 mm	Set	8	

 JE/LDO	 JE/LDO	 SSE/MPS-2	 JE/ECS	 SSE/ECS
 WM/Design	 WM/Plg.	 AWM/ECS		





SN	DESCRIPTION	UNIT	Qty Required in loose	Remarks
54	U-set of Nylon Cable tie 200x4.88 mm	Set	6	
55	Earthing lug M8	Nos.	22	
56	Earthing lug M10	Nos.	5	
57	Earthing lug M12	Nos.	29	

 JE/LDO	 JE/LDO	 SSE/MPS-2	 JE/ECS	 SSE/ECS
 WM/Design	 WM/Plg.	 AWM/ECS		

ANNEXURE 'B'

(Technical and testing requirement of Annexure 'A')
For Supply of harnesses cable for DETC/US

S. NO.	DESCRIPTION	Technical/Testing requirements (conforming to Drgs./spec.)
1	E-BEAM CABLES	RDSO spec. ELRS/SPEC/ ELC/0019 rev -4'
2	CRIMPING SOCKET C 4/2 ICF/SK 7-2-166,M-4	Drg. 077-7-2-166 & SPEC. EDTS 200, Rev. NIL
3	CRIMPING SOCKET ICF/SK 7-2-528/ITEM 20, M-4	Drg. 077-7-2-528 & SPEC. EDTS 201, Rev 'A'
4	CRIMPING SOCKET D8/50 ICF/SK 7-2-166	Drg. 077-7-2-166 & SPEC. EDTS 200, Rev. NIL
5	CRIMPING SOCKET D13/50 ICF/SK 7-2-166	Drg. 077-7-2-166 & SPEC. EDTS 200, Rev. NIL
6	2 CORE SCREENED CABLE, 2.5 SQ MM	CLW/ES/3/0459,Alt 'C'
7	2 PAIR 0.5 SQMM INDOOR TELEPHONE CABLE	G/WIR-06/02
8	U SET OF NYLON CABLE TIE 400X7.87 MM	CLW-ES-C-54, ALT-B
9	U SET OF NYLON CABLE TIE 300X7.87 MM	CLW-ES-C-54, ALT-B
10	U SET OF NYLON CABLE TIE 200X4.88 MM	CLW-ES-C-54, ALT-B
11	UNF CRIMPING SOCKET ITEM-23, M-5	Drg. 077-7-2-528 & SPEC. EDTS 201, Rev 'A'
12	UNF STRAIGHT CONNECTOR DIA 40 MM	RDSO/PE/SPEC/AC/0138-2009, REV-1
13	UNF STRAIGHT CONNECTOR NW23 DIA 25 MM	RDSO/PE/SPEC/AC/0138-2009, REV-1
14	UNF FLEXIBLE CONDUIT NW23 DIA 25 MM	RDSO/PE/SPEC/AC/0138-2009, REV-1
15	UNF FLEXIBLE CONDUIT NW48 DIA 50 MM	RDSO/PE/SPEC/AC/0138-2009, REV-1
16	UNF END FITTING STRAIGHT NW29 DIA 32 MM	RDSO/PE/SPEC/AC/0138-2009, REV-1
17	UNF FLEXIBLE CONDUIT NW29 DIA 32 MM	RDSO/PE/SPEC/AC/0138-2009, REV-1
18	FLEXIBLE CONDUIT NW17 DIA 20 MM	RDSO/PE/SPEC/AC/0138-2009, REV-1
19	CRIMPING SOCKET ICF/SK 72604/03,120 DOUBLE HOLE	Drg. 077-7-2-604 & SPEC. EDTS 200, Rev. NIL
20	CRIMPING SOCKET ICF/SK/72528 14, M-12	Drg. 077-7-2-528 & SPEC. EDTS 201, Rev 'A'
21	S/L CRIMPING SOCKET C6/32 ICF/SK 7-2-166	Drg. 077-7-2-166 & SPEC. EDTS 200, Rev. NIL
22	U CRIMPING SOCKET ICF/SK 7-2-528/ITEM 24,M-6	Drg. 077-7-2-528 & SPEC. EDTS 201,Rev 'A'
23	U CRIMPING SOCKET C4/0 ICF/SK 72166 (M-5)	Drg. 077-7-2-166 & SPEC. EDTS 200, Rev. NIL
24	U CRIMPING SOCKET C4/32 ICF/SK 72166	Drg. 077-7-2-166 & SPEC. EDTS 200, Rev. NIL
25	U CRIMPING SOCKET D7/38 ICF/SK 72166	Drg. 077-7-2-166 & SPEC. EDTS 200, Rev. NIL
26	INF CRIMPING SOCKET TYPE-D8/2	Drg. 077-7-2-166 & SPEC. EDTS 200, Rev. NIL
27	UNF CRIMPING SOCKET D8/32 ICF/SK 72166	Drg. 077-7-2-166 & SPEC. EDTS 200, Rev. NIL
28	UNF CRIMPING SOCKET TYPE-D8/38	Drg. 077-7-2-166 & SPEC. EDTS 200, Rev. NIL
29	UNF CRIMPING SOCKET TO ICF/SK/72037/ITM1,150 DOUBLE HOLE	Drg. 329-7-2-037 & RCF SPEC. EDTS 200, Rev. NIL
30	S/L CRIMPING SOCKET D 7/32 ICF/SK 72166	Drg. 077-7-2-166 & SPEC. EDTS 200, Rev. NIL
31	CRIMPING SOCKET D14/50 BEND 5	Drg. 077-7-2-166 & SPEC. EDTS 200, Rev. NIL
32	S/L CRIMPING TERMNLS 20/D14/38/50	Drg. 077-7-2-166 & SPEC. EDTS 200, Rev. NIL
33	S/L CRIMPING SOCKET D 7/0 ICF/SK 72166	Drg. 077-7-2-166 & SPEC. EDTS 200, Rev. NIL
34	S/L CRIMPING SOCKET D 9/38 ICF/SK 72166	Drg. 077-7-2-166 & SPEC. EDTS 200, Rev. NIL
35	CRIMPING SOCKET D12/38 BEND 5	Drg. 077-7-2-166 & SPEC. EDTS 200, Rev. NIL





 JE/LDO	 JE/LDO	 WM/Design	 Dy.CEE/Design
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ANNEXURE 'B'

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(Technical and testing requirement of Annexure 'A')
For Supply of harnessed cable for DETC/US

36	U CRIMPING SOCKET D12/50 ICF/SK 72166	Drg. 077-7-2-166 & SPEC. EDTS 200, Rev. NIL
37	UNF FLEXIBLE CONDUIT NW36 DIA 40 MM	RDSO/PE/SPEC/AC/0138-2009, REV-1
38	WIRE END INSULATED FERRULE TO TYPE AI 2.5-12BU OF M/S.PHOENIX OR TYPE H 2.5 /18D OF M/S.WEID MULLER OR EQUIVALENT OF M/S. WAGO OR Type A02577 OF M/S.GLW GmbH Germany.	OEM/As described
39	WIRE END INSULATED FERRULE TO ITEM NO.216-204 OF M/S WAGO OR TYPE H1,5/14D SWBD OF M/S WEID MULLER OR TYPE AI 1,5-8BK OF M/S PHOENIX.	OEM/As described
40	CRIMPING SOCKET TO CAT.NO.CP-27 OF M/S.DOWELL	OEM/As described
41	SHRINKDOWN SLEEVE /Printed SD sleeve	CLW/ES/3/0154,Alt 'R'
42	CABLE JACKET SYSTEM 40 mm	EDTS-138, REV.0, CORR.1, ITEM-11
43	CABLE JACKET SYSTEM 20mm	EDTS-138 REV-0, CORR.1, ITEM-8.
44	CABLE JACKET SYSTEM 10mm	EDTS-138, REV-0, CORR.1, ITEM-5.
45	Lead coated D.H. LUG TERMINAL FOR 95 MM SQUARE CABLE.	Drg. EL/PT/0367_R2
46	HEX HEAD SCREW M8 X 20	CLW/MS/3/040, Alt 14
47	HEX HEAD SCREW M12 X 25	CLW/MS/3/040, Alt 14
48	HEX HEAD SCREW M10 X 25	CLW/MS/3/040, Alt 14
49	PLAIN WASHER M8	CLW/MS/3/040, Alt 14
50	PLAIN WASHER M10	CLW/MS/3/040, Alt 14
51	PLAIN WASHER M12	CLW/MS/10/053, Alt-6
52	SPRING WASHER B8	CLW/MS/3/040, Alt 14
53	SPRING WASHER B10	CLW/MS/3/040, Alt 14
54	SPRING WASHER B12	CLW/MS/3/040, Alt 14
55	EARTHING LUG M8	DRG.NO. ICF/MRVC/M-1-6-012/ COL-VII, ALT 'd' & SPEC. EDTS 200, Rev. NIL
56	EARTHING LUG M10	DRG.NO.ICF/MRVC/M-1-6-012/ COL-VIII,ALT 'd' & SPEC. EDTS 200, Rev. NIL
57	EARTHING LUG M12	DRG.NO. ICF/MRVC/M-7-1-014/ COL.I, ALT "a" & SPEC. EDTS 200, Rev. NIL

 JE/LDO	 JE/LDO	 WM/Design	 Dy.CEE/Design
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