ELECTRICAL INSTALLATION CERTIFICATE

KEWTECH

REQUIREMENTS FOR ELECTRICAL INSTALLATIONS

Acknowledgement: this certificate is based on the model in appendix 6 of BS 7671: 2008

CP Scheme: N/A ☐

Membership No.

Page 1 of 5

Certificate No. 00734

CLIENT DETAILS	INSTALLATION ADDRESS
MERVYN LAMBERT PLANT	MILL POND FARM, CARBOLDISHAM
MILL POND FARM, CARBOLDISHAM	DISS
DISS NORFOLK Postcode IP22 2SP	NORFOLK Postcode IP22 2SP

DESCRIPTION AND EXTENT OF THE INSTALLATIONS (tick boxes as appropriate)

NEW INSTALLATION ☑ ADDITION TO AN EXISTING INSTALLATION ☐ ALTERATION TO AN EXISTING INSTALLATION ☐

Description of installation: HGV WORKSHOP

Extent of installation covered by this certificate: COMPLETE INSTALLATION

DESIGN

I/We being the person(s) responsible for the design of the electrical installation (as indicated by my/our signatures below), particulars of which are described above, having exercised reasonable skill and care when carrying out the design hereby CERTIFY that the design work for which I/we have been responsible is to the best of my/our knowledge and belief in accordance with:

BS7671 2008 **amended to** 2011 **(date) except for the departures, if any, details as follows:-**

Details of departure from BS7671: Regulations 120:3 and 133.5

NONE

The extent of liability of the signatory or the signatories is limited to the work described above as the subject of this Certificate.

For the design of the installation: **(Where there is mutual responsibility for the design)

Designer No1 - Signature	Name (Capitals) A BOOTH	Date 05/06/15
Designer No2** - Signature	Name (Capitals)	Date

CONSTRUCTION

I/We being the person(s) responsible for the construction of the electrical installation (as indicated by my/our signatures below), particulars of which are described above, having exercised reasonable skill and care when carrying out the design hereby CERTIFY that the construction work for which I/we have been responsible is to the best of my/our knowledge and belief in accordance with:

BS7671 2008 **amended to** 2011 **(date) except for the departures, if any, details as follows:-**

Details of departure from BS7671: Regulations 120:3 and 133.5

NONE

The extent of liability of the signatory is limited to the work described above as the subject of this Certificate.

For the construction of the installation:

Installer - Signature	Name (Capitals) A BOOTH	Date 05/06/15

INSPECTION & TESTING

I/We being the person(s) responsible for the inspection of the electrical installation (as indicated by my/our signatures below), particulars of which are described above, having exercised reasonable skill and care when carrying out the inspection and testing hereby CERTIFY that the work for which I/we have been responsible is to the best of my/our knowledge and belief in accordance with:

BS7671 2008 **amended to** 2011 **(date) except for the departures, if any, details as follows:-**

Details of departure from BS7671: Regulations 120:3 and 133.5

NONE

The extent of liability of the signatory is limited to the work described above as the subject of this Certificate.

For the inspection and testing of the installation:

Inspector - Signature	Name (Capitals) A BOOTH	Date 05/06/15

NEXT INSPECTION

I/We the designer(s), recommend that this installation is further inspected and tested after an interval of not more than:	**YEARS** 5	**MONTHS** —

TC1/a

ELECTRICAL INSTALLATION CERTIFICATE

REQUIREMENTS FOR ELECTRICAL INSTALLATIONS

KEWTECH

Certificate No. 00734

PARTICULARS OF SIGNATORIES TO THE ELECTRICAL INSTALLATION CERTIFICATE

Designer (No1)	Designer (No2) if applicable
Name A BOOTH	Name
Company AB ELECTRICAL SERVICES	Company
Address 4 CRICKS ROAD	Address
WEST ROW	
SUFFOLK	
Postcode IP28 8PQ Tel No	Postcode Tel No

Constructor	Inspector
Name	Name
Company	Company
Address AS ABOVE	Address AS DESIGNER (No1)
Postcode Tel No	Postcode Tel No

SUPPLY CHARACTERISTICS & EARTHING ARRANGEMENTS

Earthing Arrangements		Number of Live Conductors	Nature of Supply Parameters
TN-C	TN-S	Phase 3 Wire 4	Normal Voltage U/U_0 400 V
TN-C-S ✓	TT	Other N/A	Nominal Frequency f 50 Hz
IT		*Confirmation of supply polarity* ✓	Prospective fault current Ipf* 1.4 kA
Supply Protective Device Characteristics			External loop impedance Ze* 0.32 Ω
Type BS EN 60898 (C)		Nominal current rating 63 A	* ~~by enquiry or~~ by measurement

PARTICULARS OF INSTALLATION REFERRED TO IN THE CERTIFICATE

Means of Earthing	Details of Installation Earth Electrode (where applicable)
Distributor's facility ✓	Type [eg. rod(s) tape etc] N/A
Installation earth electrode	Electrode resistance to Earth N/A Ω
Maximum Demand	Location N/A
Maximum demand (load) 63 ~~kVA~~ / Amps	

Main Protective Conductors

Earthing conductor:	Material COPPER	csa 16 mm²	Continuity and connection verified ✓
Main protective bonding conductors:	Material COPPER	csa 16 mm²	Continuity and connection verified ✓
To incoming water and/or gas service ☐	To other elements STRUCTURAL STEEL		

Main Switch or Circuit-breaker

BS, Type EN 61008	No. of poles 4	Voltage rating 400 V
Location	Current rating 80 A	Fuse rating or setting N/A A

Rated residual operating current IΔn = 30 mA, and operating time of 200 ms (at IΔn) (applicable only where an RCD is suitable and is used as a main circuit-breaker)

Comments on existing installation (in the case of an addition or alteration see Section 633)

Schedules

The attached Schedules are part of this document and this Certificate is valid only when they are attached to it.

No. of Inspection Schedules attached. Page 1 of 1 pages	No. of Test Result Schedules attached. Page 2 of 2 pages

ELECTRICAL INSTALLATION CERTIFICATE
SCHEDULE OF INSPECTIONS
(FOR NEW INSTALLATION WORK ONLY)

KEWTECH

Certificate No. 00734

METHODS OF PROTECTION AGAINST ELECTRIC SHOCK

Both basic and fault protection:

- N/A (i) SELV
- N/A (ii) PELV
- N/A (iii) Double insulation
- N/A (iv) Reinforced insulation

Basic protection:

- ✓ (i) Insulation of live parts
- ✓ (ii) Barriers or enclosures
- N/A (iii) Obstacles
- N/A (iv) Placing out of reach

Fault protection:

(i) Automatic disconnection of supply:

- ✓ Presence of earthing conductor
- ✓ Presence of circuit protective conductors
- ✓ Presence of protective bonding conductors
- N/A Presence of supplementary bonding conductors
- N/A Presence of earthing arrangements for combined protective and functional purposes
- N/A Presence of adequate arrangements for other sources, where applicable
- N/A FELV
- ✓ Choice and setting of protective and monitoring devices (for fault and/or overcurrent protection)

(ii) Non-conducting location:

- N/A Absence of protective conductors

(iii) Earth-free local equipotential bonding:

- N/A Presence of earth-free local equipotential bonding

(iv) Electrical separation:

- N/A Provided for one item of current-using equipment
- N/A Provided for more than one item of current-using equipment

Additional protection:

- ✓ Presence of residual current device(s)
- N/A Presence of supplementary bonding conductors

PREVENTION OF MUTUAL DETRIMENTAL INFLUENCE

- ✓ (a) Proximity to non-electrical services and other influences
- ✓ (b) Segregation of Band I and Band II circuits or use of Band II insulation
- N/A (c) Segregation of safety circuits

Identification

- ✓ (a) Presence of diagrams, instructions, circuit charts and similar information
- ✓ (b) Presence of danger notices and other warning notices
- ✓ (c) Labelling of protective devices, switches and terminals
- ✓ (d) Identification of conductors

Cables and conductors

- ✓ Selection of conductors for current-carrying capacity and voltage drop
- ✓ Erection methods
- ✓ Routing of cables in prescribed zones
- ✓ Cables incorporating earthed armour or sheath, or run within an earthed wiring system, or otherwise adequately protected against nails, screws and the like
- ✓ Additional protection provided by 30 mA RCD for cables concealed in walls (where required in premises not under the supervison of a skilled or instructed person)
- ✓ Connection of conductors
- ✓ Presence of fire barriers, suitable seals and protection against thermal effects

General

- ✓ Presence and correct location of appropriate devices for isolation and switching
- ✓ Adequacy of access to switchgear and other equipment
- ✓ Particular protective measures for special installations and locations
- ✓ Connection of single-pole devices for protection or switching in line conductors only
- ✓ Correct connection of accessories and equipment
- N/A Presence of undervoltage protective devices
- ✓ Selection of equipment and protective measures appropriate to external influences
- ✓ Selection of appropriate functional switching devices

NOTES: ***An entry must be made in every box***

✓ to indicate an inspection has been carried out and the result is satisfactory

N/A to indicate that the inspection is not applicable to a particular item

Inspected by: Name (Capitals) A BOOTH	Signature	Date 05/06/15

SCHEDULE OF TEST RESULTS

Acknowledgement: this certificate is based on the model in appendix 6 of BS 7671: 2008

Certificate/Report No. 007134

KEWTECH

CP Scheme: N/A ☐

Membership No.

DB reference no.	Details of circuits and/or installed equipment vulnerable to damage when testing	Details of test instruments used (state serial and/or asset numbers)
Location HGV WORKSHOP		Multifunction FLUKE 1653 / 8934057
Zs at DB (Ω) 0.32 | Ipf at DB (kA) 1.4		Insulation / continuity
Correct supply polarity confirmed ✓		Earth fault loop impedance
Phase sequence confirmed (where appropriate) ✓		RCD | Earth electrode res.

Tested by: Name (Capitals) A BOOTH — Date 05/06/15

Signature

Test Results

Circuit Details

Circuit number	Circuit Description	Overcurrent Device: BS (EN)	Type	Rating (A)	Breaking Capacity (kA)	Conductor Details: Reference Method	Live (mm²)	cpc (mm²)	Ring Final Circuit Continuity (Ω): r_1 (line)	r_n (neutral)	r_2 (cpc)	Continuity (Ω) (R_1+R_2) or R_2: (R_1+R_2)*	R_2	Insulation Resistance (MΩ): Live-Live	Live-Earth	Polarity ✓ or ×	Zs (Ω)	RCD (ms): @ IΔn	@ 5 IΔn	Test Button Operation	Remarks (continue on a separate sheet if necessary)
BR1							2.5	–	–	–	–	0.42	–	7500	7500	✓	0.83				
BL1	LEFT HAND ROLLER DOOR	60898	C	16	10	B	2.5	2.5	–	–	–	0.41	–	7500	7500	✓	0.76				
G1							2.5	–	–	–	–	0.43	–	7500	7500	✓	0.80				
BR2							2.5	–	–	–	–	0.39	–	7500	7500	✓	0.62				
BL2	16AMP SOCKET N°_1	60898	D	16	10	B	2.5	2.5	–	–	–	0.39	–	7500	7500	✓	0.60				
G2							2.5	–	–	–	–	0.38	–	7500	7500	✓	0.61				
BR3							4.0	–	–	–	–	0.32	–	7500	7500	✓	0.56				
BL3	16AMP SOCKET N°_3	60898	D	16	10	B	4.0	2.5	–	–	–	0.34	–	7500	7500	✓	0.57				
G3							4.0	–	–	–	–	0.32	–	7500	7500	✓	0.61				
BR4							4.0	–	–	–	–	0.07	–	7500	7500	✓	0.36				
BL4	COMPRESSOR	60898	D	32	10	F	4.0	4.0	–	–	–	0.07	–	7500	7500	✓	0.31				
G4							4.0	–	–	–	–	0.06	–	7500	7500	✓	0.35				

*Where there are no spurs connected to a ring final circuit this value is also $(R_1 + R_2)$ of the circuit.

SCHEDULE OF TEST RESULTS cont.

Acknowledgement: this certificate is based on the model in appendix 6 of BS 7671: 2008

Certificate/Report No. 00734

KEWTECH

Circuit Details																		Test Results					
		Overcurrent Device				Conductor Details			Ring Final Circuit Continuity (Ω)			Continuity (Ω) (R_1+R_2) or R_2		Insulation Resistance (MΩ)		Polarity	Zs (Ω)	RCD (ms)			Remarks (continue on a separate sheet if necessary)
Circuit number	Circuit Description	BS (EN)	Type	Rating (A)	Breaking Capacity (kA)	Reference Method	Live (mm^2)	cpc (mm^2)	r_1 (line)	r_n (neutral)	r_2 (cpc)	(R_1+R_2) *	R_2	Live-Live	Live-Earth	✓ or ✗		@ IΔn	@ 5 IΔn	Test Button Operation	
BR5	BLANK																				
BL5	BLANK																				
G5	EXTERNAL LIGHTING	60598	B	10	6	F	1.5	1.5	—	—	—	1.15	—	7500	7500	✓	1.45				
BR6	COMP ROOM LIGHT	60598	B	6	6	F	1.5	1.5	—	—	—	0.56	—	7500	7500	✓	0.70				
BL6	INSPECTION PIT LIGHTS	60598	B	6	6	F	2.5	2.5	—	—	—	1.34	—	7500	7500	✓	1.78				
G6	HIGH BAY / ENERG LIGHTS	60598	B	10	6	F	2.5	2.5	—	—	—	0.54	—	7500	7500	✓	0.72				
BR7							2.5	—	—	—	—	0.42	—	7500	7500	✓	0.77				
BL7	RIGHT HAND ROLLER DOOR	60598	C	16	10	B	2.5	2.5	—	—	—	0.46	—	7500	7500	✓	0.76				
G7							2.5	—	—	—	—	0.44	—	7500	7500	✓	0.75				
BR8							2.5	—	—	—	—	0.45	—	7500	7500	✓	0.78				
BL8	16AMP SOCKET N° 2	60598	D	16	10	B	2.5	2.5	—	—	—	0.46	—	7500	7500	✓	0.64				
G8							2.5	—	—	—	—	0.45	—	7500	7500	✓	0.85				
BR9							4.0	—	—	—	—	0.46	—	7500	7500	✓	0.85				
BL9	16AMP SOCKET N° 4	60598	D	16	10	B	4.0	2.5	—	—	—	0.48	—	7500	7500	✓	0.81				
G9							4.0	—	—	—	—	0.46	—	7500	7500	✓	0.91				
BR10	BLANK																				
BL10	BLANK																				
G10	BLANK																				
BL11	BLANK																				
BL11	20AMP ISO FOR 110V TRAN	60598	B	20	6	B	2.5	2.5	—	—	—	0.10	—	7500	7500	✓	0.51				
G11	INTRUDER ALARM	60598	B	10	6	B	2.5	2.5	—	—	—	0.01	—	7500	7500	✓	0.48				
BR12	WATER HEATER	60598	B	16	6	B	2.5	2.5	—	—	—	0.16	—	7500	7500	✓	0.56				
BL12	13AMP SOCKETS	60598	B	32	6	B	2.5	1.5	0.24	0.20	0.21	0.10	—	7500	7500	✓	0.38				
G12	32AMP ISO (CHARGERS)	60598	D	32	10	B	4.0	2.5	—	—	—	0.38	—	7500	7500	✓	0.22				

*Where there are no spurs connected to a ring final circuit this value is also (R_1 +R_2) of the circuit.