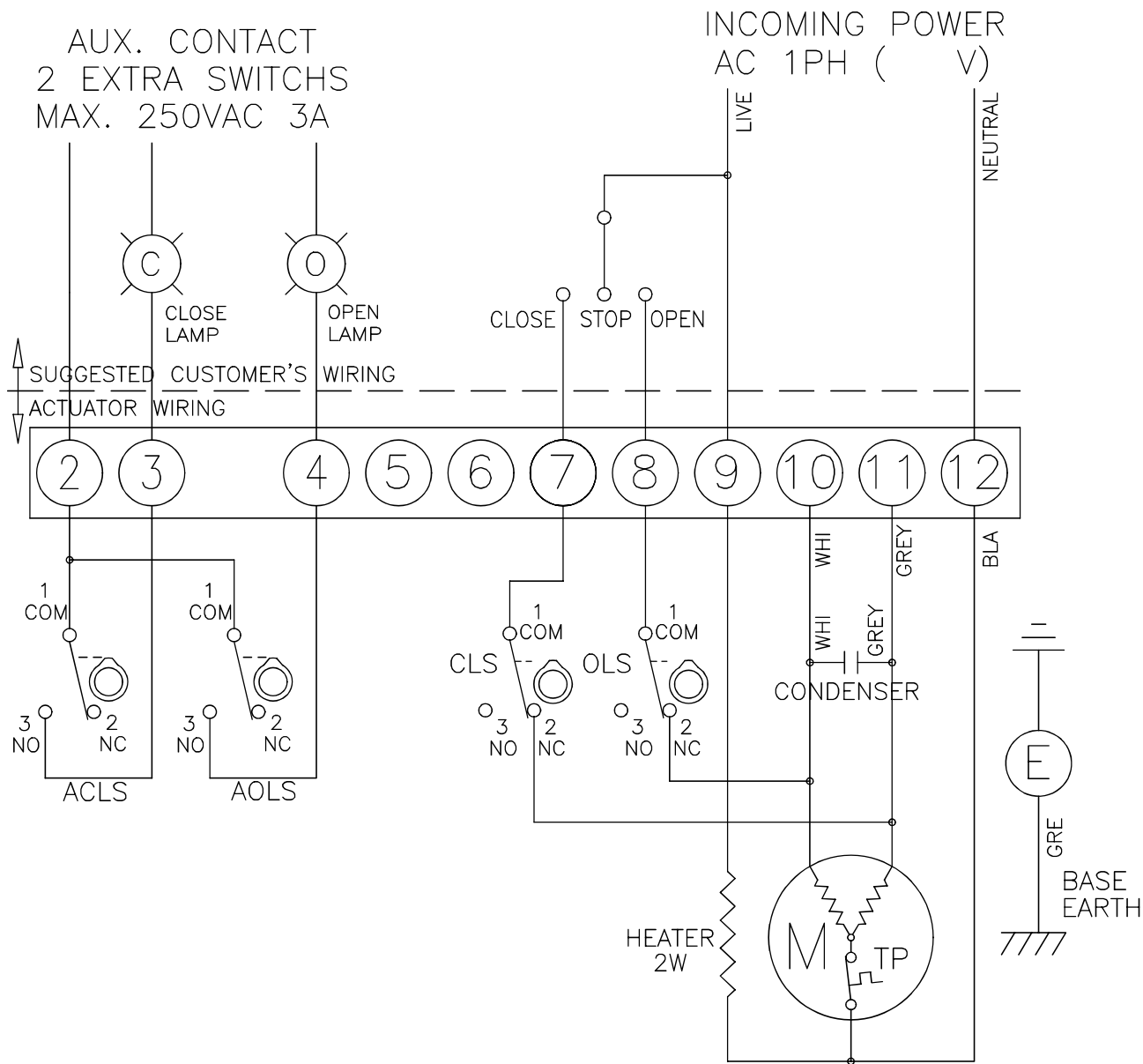




TORQUE AND LIMIT SWITCH OPERATION

SWITCH	CLOSE ←	INTERMEDIATE	→ OPEN
CLS 1-2			
CLS 1-3			
OLS 1-2			
OLS 1-3			
ACLS 1-2			
ACLS 1-3			
AOLS 1-2			
AOLS 1-3			

SYMBOL	DESCRIPTION	RATING
CLS	CLOSE LIMIT SWITCH	250VAC 5A
OLS	OPEN LIMIT SWITCH	250VAC 5A
ACLS	AUX. CLOSE LIMIT SWITCH	250VAC 5A
AOLS	AUX. OPEN LIMIT SWITCH	250VAC 5A
TP	THERMAL PROTECTOR	250VAC 15A

*EACH ACTUATOR SHOULD BE POWERED THROUGH IT'S OWN INDIVIDUAL SWITCH OR RELAY CONTACTS TO PREVENT CROSS FEED BETWEEN TWO OR MORE ACTUATORS.

PART NAME 1PH WIRING DIAGRAM
STANDARD

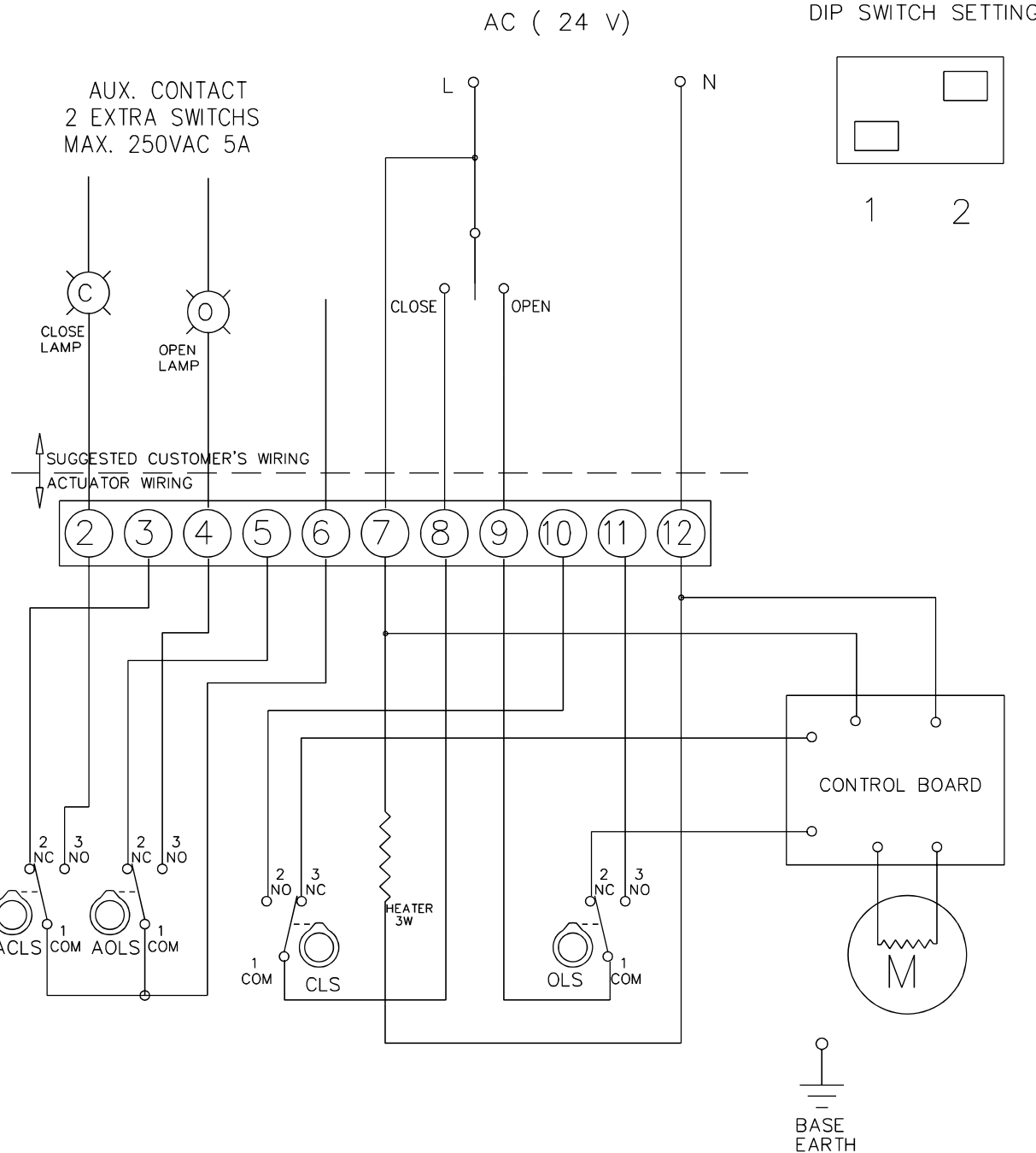
DWG. NO HQ-110-B

DATE 2001.05.10 ISSUE REF: B

HQ-004
HQ-006
APPLICATION

ACTUATED SOLUTIONS LTD
TEL: (01243) 827469
FAX: (01243) 829418

DOC : WD-01 1-09-2008



TORQUE AND LIMIT SWITCH OPERATION

SWITCH	CLOSE ←	INTERMEDIATE	→ OPEN
CLS 1-2			
CLS 1-3			
OLS 1-2			
OLS 1-3			

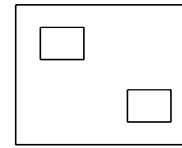
SYMBOL	DESCRIPTION	RATING
CLS	CLOSE LIMIT SWITCH	250VAC 5A
OLS	OPEN LIMIT SWITCH	250VAC 5A

*EACH ACTUATOR SHOULD BE POWERED THROUGH IT'S OWN INDIVIDUAL SWITCH OR RELAY CONTACTS TO PREVENT CROSS FEED BETWEEN TWO OR MORE ACTUATORS.

	PART NAME	AC WIRING DIAGRAM STANDARD(AC 24V)
	DWG. NO	HQ-740-B
	DATE	2004.12.01
	ISSUE REF:	B
HQ-006	ACTUATED SOLUTIONS LTD TEL: (01243) 827469 FAX: (01243) 829418	
HQ-004		
APPLICATION		

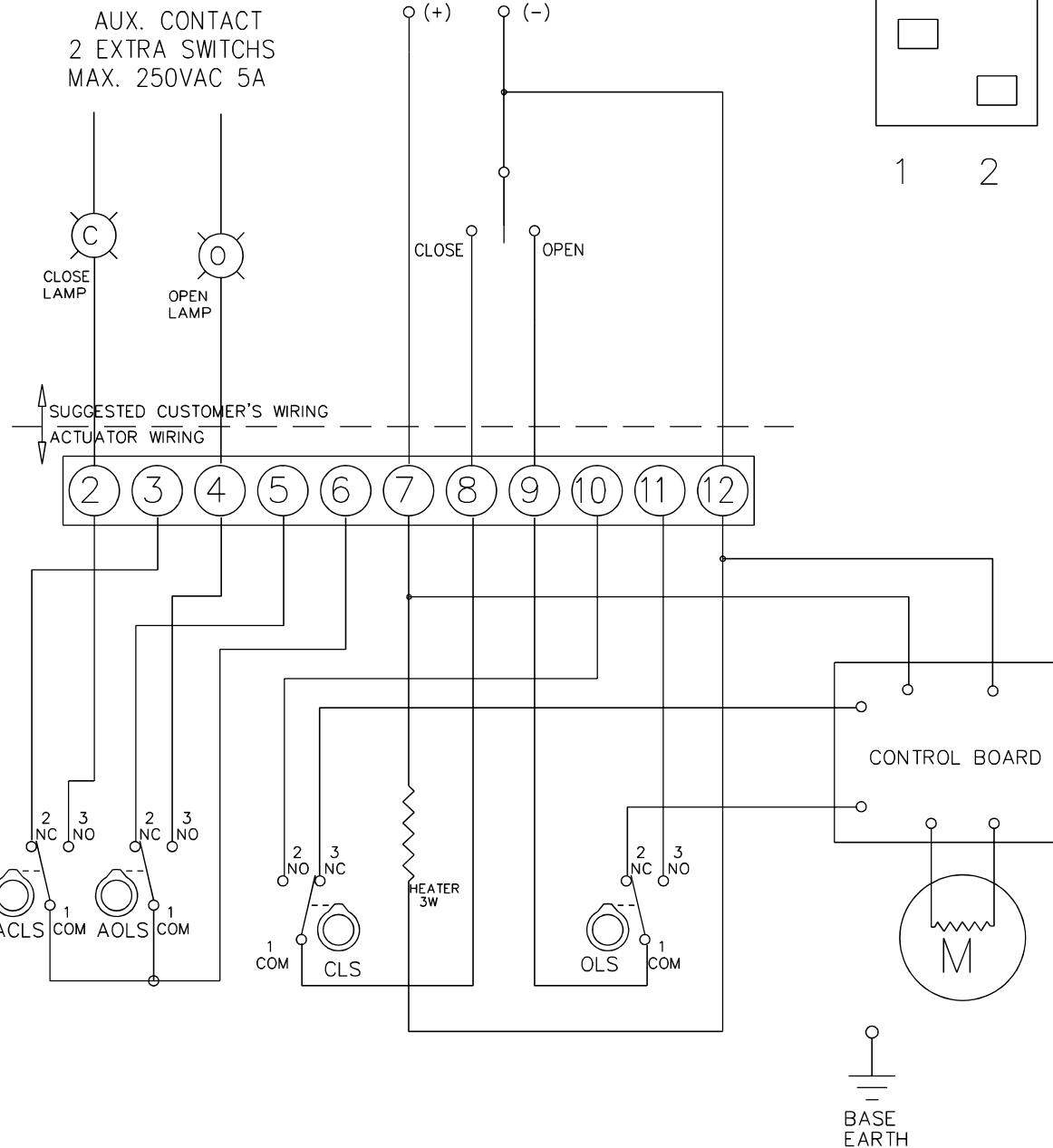
DOC : WD-01 1-09-2008

DIP SWITCH SETTING



1 2

DC (24 V)



TORQUE AND LIMIT SWITCH OPERATION

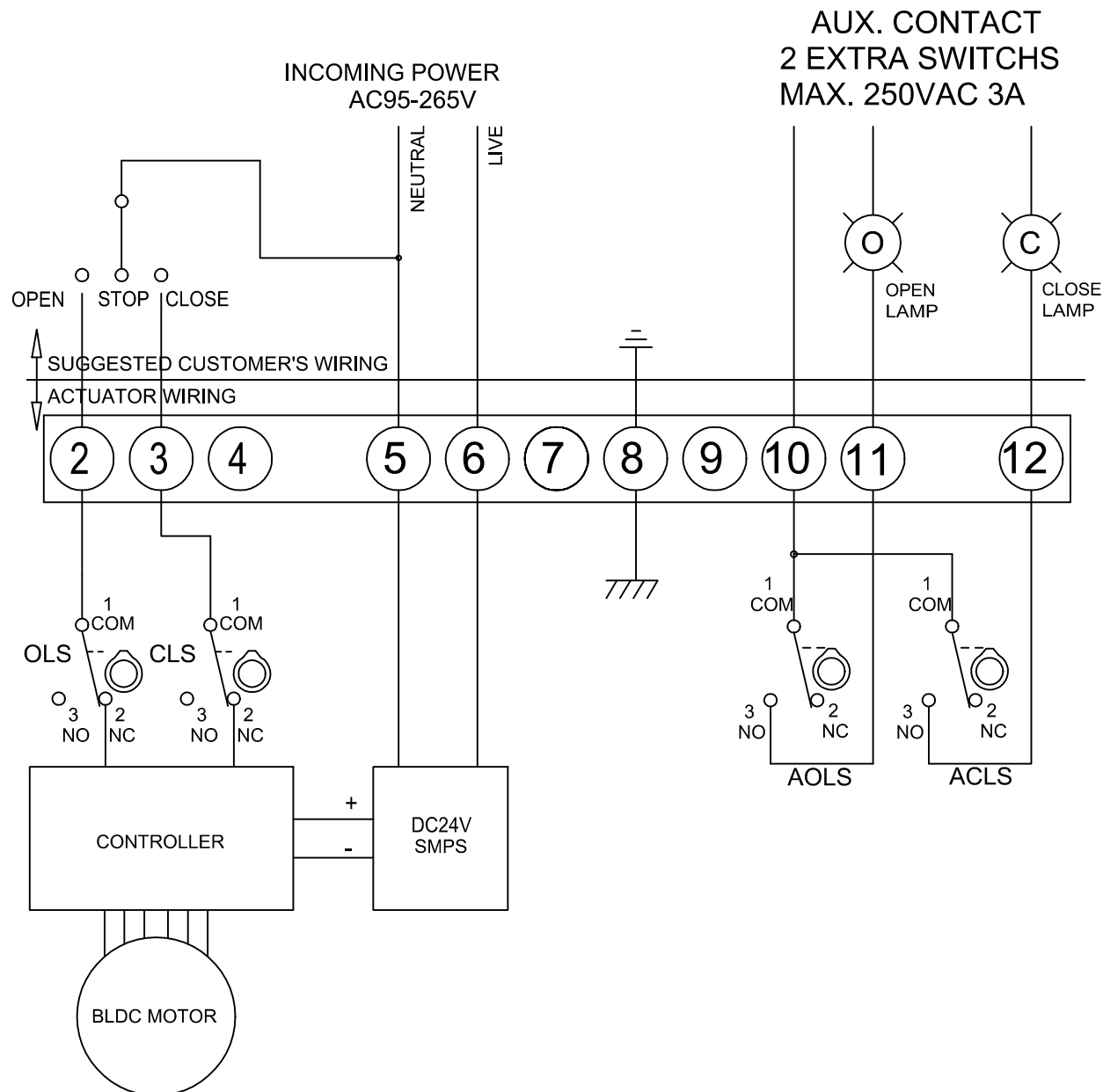
SWITCH	CLOSE ←	INTERMEDIATE	→ OPEN
CLS 1-2			
CLS 1-3			
OLS 1-2			
OLS 1-3			

SYMBOL	DESCRIPTION	RATING
CLS	CLOSE LIMIT SWITCH	250VAC 5A
OLS	OPEN LIMIT SWITCH	250VAC 5A

*EACH ACTUATOR SHOULD BE POWERED THROUGH IT'S OWN INDIVIDUAL SWITCH OR RELAY CONTACTS TO PREVENT CROSS FEED BETWEEN TWO OR MORE ACTUATORS.

	PART NAME	DC WIRING DIAGRAM STANDARD(DC 24V)
	DWG. NO	HQ-840-B
	DATE	2004.12.01
	ISSUE REF:	B
HQ-006	ACTUATED SOLUTIONS LTD TEL: (01243) 827469 FAX: (01243) 829418	
HQ-004		
APPLICATION		

DOC : WD-01 1-09-2008



TORQUE AND LIMIT SWITCH OPERATION

SWITCH	CLOSE ←	INTERMEDIATE	→ OPEN
CLS 1-2			
CLS 1-3			
OLS 1-2			
OLS 1-3			
ACLS1-2			
ACLS1-3			
AOLS1-2			
AOLS1-3			

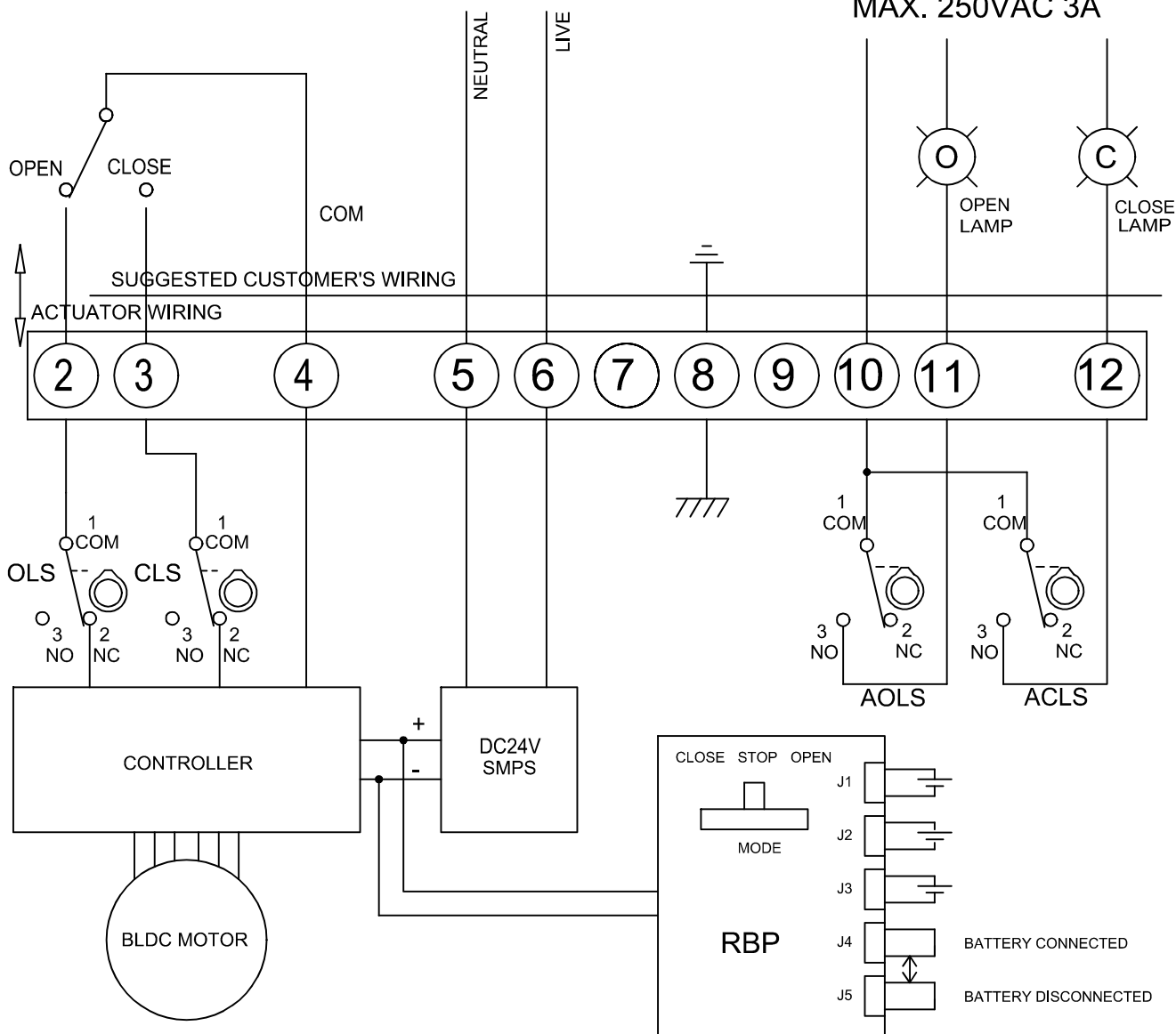
SYMBOL	DESCRIPTION	RATING
CLS	CLOSE LIMIT SWITCH	250VAC 5A
OLS	OPEN LIMIT SWITCH	250VAC 5A
ACLS	AUX. CLOSE LIMIT SWITCH	250VAC 5A
AOLS	AUX. OPEN LIMIT SWITCH	250VAC 5A

*EACH ACTUATOR SHOULD BE POWERED THROUGH IT'S OWN INDIVIDUAL SWITCH OR RELAY CONTACTS TO PREVENT CROSS FEED BETWEEN TWO OR MORE ACTUATORS.

DRAW	J.K.CHOI	CHECK	
DESIGN	S.G.KANG	APPR.	
	PART NAME	BLDC WIRING DIAGRAM AC95-265V STANDARD	
	DWG. NO	HQ-203-B	
	ISSU. DEPT.	HADR	DATE 2015.07.01
	ACTUATED SOLUTIONS LTD TEL: (01243) 827469 FAX: (01243) 829418		
HQ-005			
APPLICATION			

INCOMING POWER
AC95-265V

AUX. CONTACT
2 EXTRA SWITCHES
MAX. 250VAC 3A



NOTE.
TO PUT BATTERY IN CIRCUIT MOVE JUMPER FROM J5 TO J4
SET FAIL MODE USING THE SELECTOR SWITCH: OPEN, STOP OR CLOSE

TORQUE AND LIMIT SWITCH OPERATION

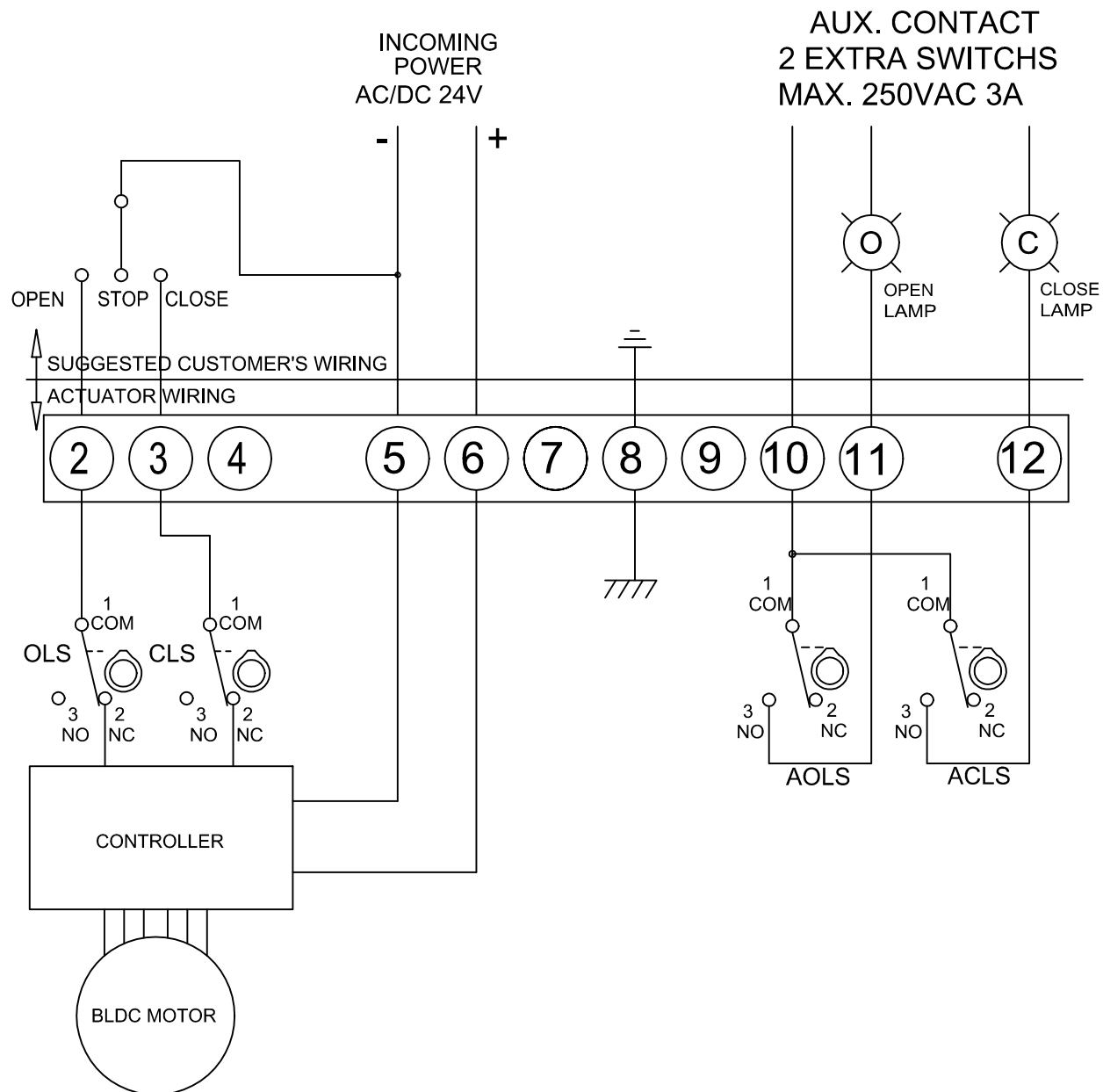
SWITCH	CLOSE ←	INTERMEDIATE	→ OPEN
CLS 1-2			
CLS 1-3			
OLS 1-2			
OLS 1-3			
ACLS1-2			
ACLS1-3			
AOLS1-2			
AOLS1-3			

SYMBOL	DESCRIPTION	RATING
CLS	CLOSE LIMIT SWITCH	250VAC 5A
OLS	OPEN LIMIT SWITCH	250VAC 5A
ACLS	AUX. CLOSE LIMIT SWITCH	250VAC 5A
AOLS	AUX. OPEN LIMIT SWITCH	250VAC 5A

*EACH ACTUATOR SHOULD BE POWERED THROUGH IT'S OWN
INDIVIDUAL SWITCH OR RELAY CONTACTS TO PREVENT CROSS
FEED BETWEEN TWO OR MORE ACTUATORS.

DRAW	J.S.KIM	CHECK	
DESIGN	S.G.KANG	APPR.	

	PART NAME	BLDC WIRING DIAGRAM RBP	
	DWG. NO	HQ-203-AR	
	DATE	2020.04.09	ISSUE REF: A
HQ-005	ACTUATED SOLUTIONS LTD		
	TEL: (01243) 827469		
APPLICATION	FAX: (01243) 829418		



TORQUE AND LIMIT SWITCH OPERATION

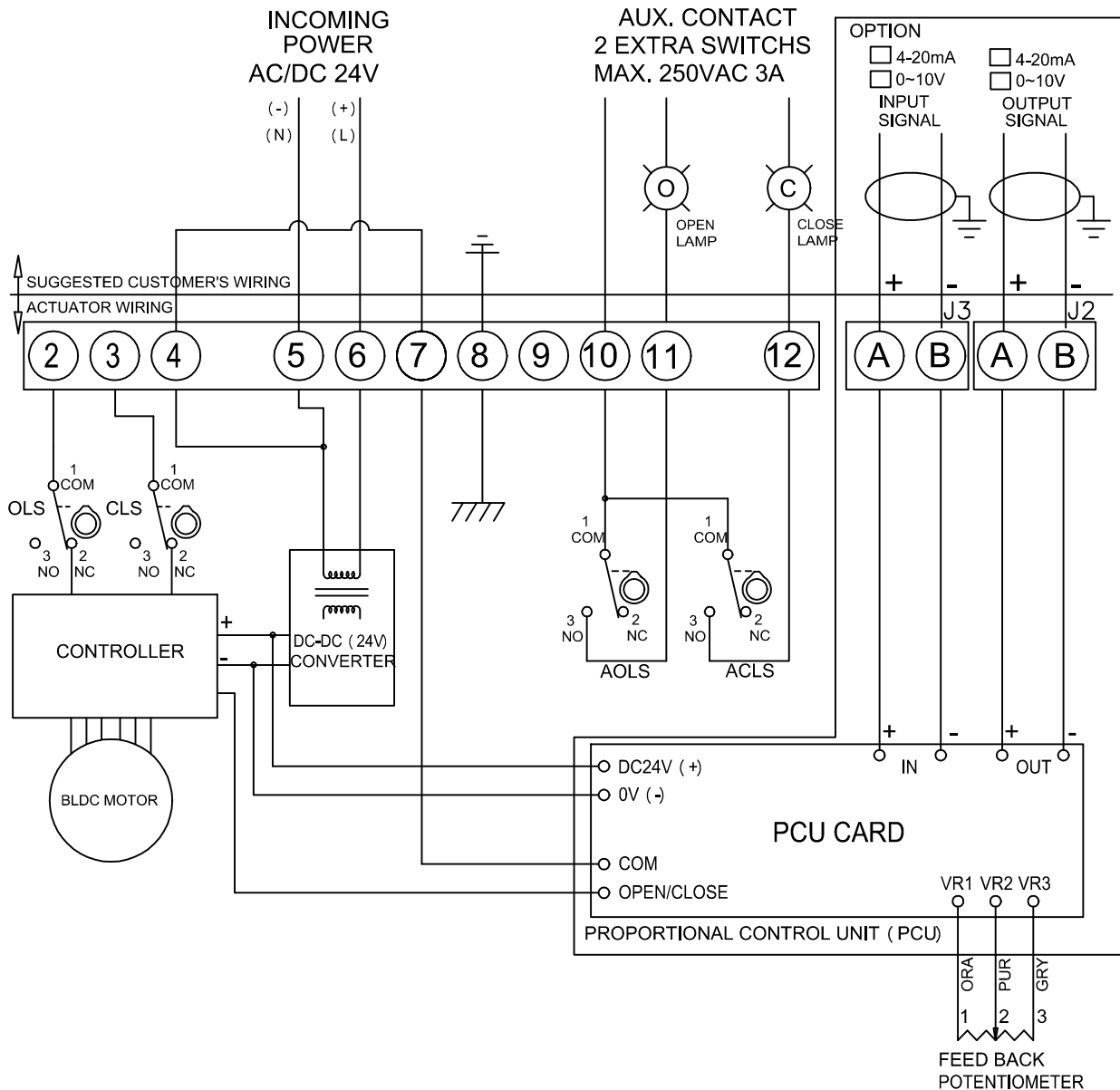
SWITCH	CLOSE ←	INTERMEDIATE	→ OPEN
CLS 1-2			
CLS 1-3			
OLS 1-2			
OLS 1-3			
ACLS1-2			
ACLS1-3			
AOLS1-2			
AOLS1-3			

SYMBOL	DESCRIPTION	RATING
CLS	CLOSE LIMIT SWITCH	250VAC 5A
OLS	OPEN LIMIT SWITCH	250VAC 5A
ACLS	AUX. CLOSE LIMIT SWITCH	250VAC 5A
AOLS	AUX. OPEN LIMIT SWITCH	250VAC 5A

*EACH ACTUATOR SHOULD BE POWERED THROUGH IT'S OWN INDIVIDUAL SWITCH OR RELAY CONTACTS TO PREVENT CROSS FEED BETWEEN TWO OR MORE ACTUATORS.

DRAW	J.K.CHOI	CHECK	
DESIGN	S.G.KANG	APPR.	

	PART NAME	BLDC WIRING DIAGRAM 24V AC/DC STANDARD	
	DWG. NO	HQ-203-D-D	
	DATE	3/5/2015	ISSUE REF: D
	ACTUATED SOLUTIONS LTD		
	TEL: (01243) 827469		
	FAX: (01243) 829418		
HQ-005			
APPLICATION			



TORQUE AND LIMIT SWITCH OPERATION

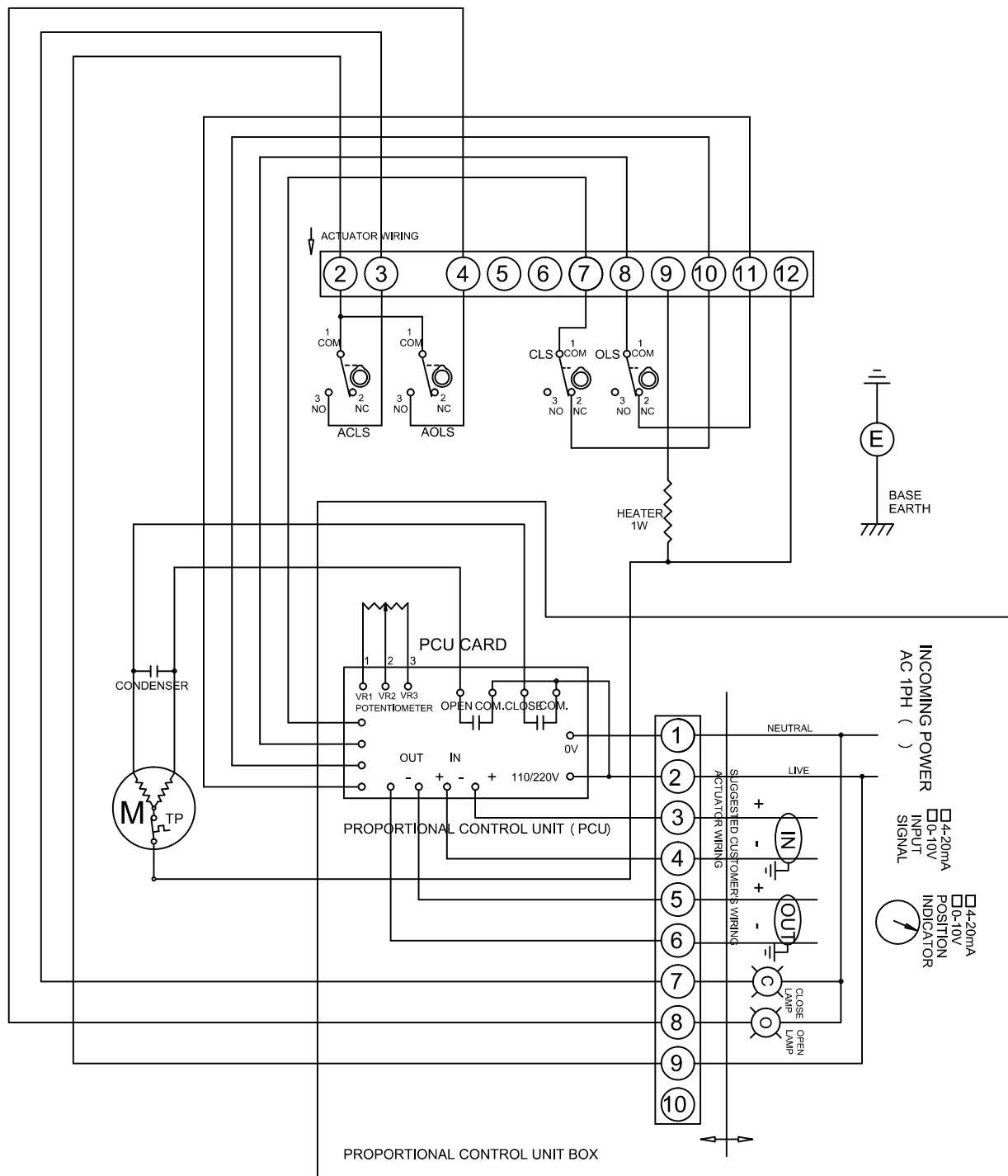
SWITCH	CLOSE ←	INTERMEDIATE	→ OPEN
CLS 1-2			
CLS 1-3			
OLS 1-2			
OLS 1-3			
ACLS1-2			
ACLS1-3			
AOLS1-2			
AOLS1-3			

SYMBOL	DESCRIPTION	RATING
CLS	CLOSE LIMIT SWITCH	250VAC 5A
OLS	OPEN LIMIT SWITCH	250VAC 5A
ACLS	AUX. CLOSE LIMIT SWITCH	250VAC 5A
AOLS	AUX. OPEN LIMIT SWITCH	250VAC 5A

*EACH ACTUATOR SHOULD BE POWERED THROUGH IT'S OWN INDIVIDUAL SWITCH OR RELAY CONTACTS TO PREVENT CROSS FEED BETWEEN TWO OR MORE ACTUATORS.

DRAW	J.S.KIM	CHECK	
DESIGN	S.G.KANG	APPR.	

	PART NAME		BLDC WIRING DIAGRAM 24v AC/DC + PCU	
	DWG. NO		HQ-253-D	
	ISSU. DEPT. HADR		DATE 2016.03.08	
HQ-005	ACTUATED SOLUTIONS LTD			
APPLICATION	TEL: (01243) 827469			
	FAX: (01243) 829418			



TORQUE AND LIMIT SWITCH OPERATION

SWITCH	CLOSE ←	INTERMEDIATE	→ OPEN
CLS 1-2			
CLS 1-3			
OLS 1-2			
OLS 1-3			
ACLS 1-2			
ACLS 1-3			
AOLS 1-2			
AOLS 1-3			

SYMBOL	DESCRIPTION	RATING
CLS	CLOSE LIMIT SWITCH	250VAC 10A
OLS	OPEN LIMIT SWITCH	250VAC 10A
ACLS	AUX. CLOSE LIMIT SWITCH	250VAC 16A
AOLS	AUX. OPEN LIMIT SWITCH	250VAC 16A

*EACH ACTUATOR SHOULD BE POWERED THROUGH IT'S OWN INDIVIDUAL SWITCH OR RELAY CONTACTS TO PREVENT CROSS FEED BETWEEN TWO OR MORE ACTUATORS.

1PH WIRING DIAGRAM
PCU

DWG. NO HQ-150-D

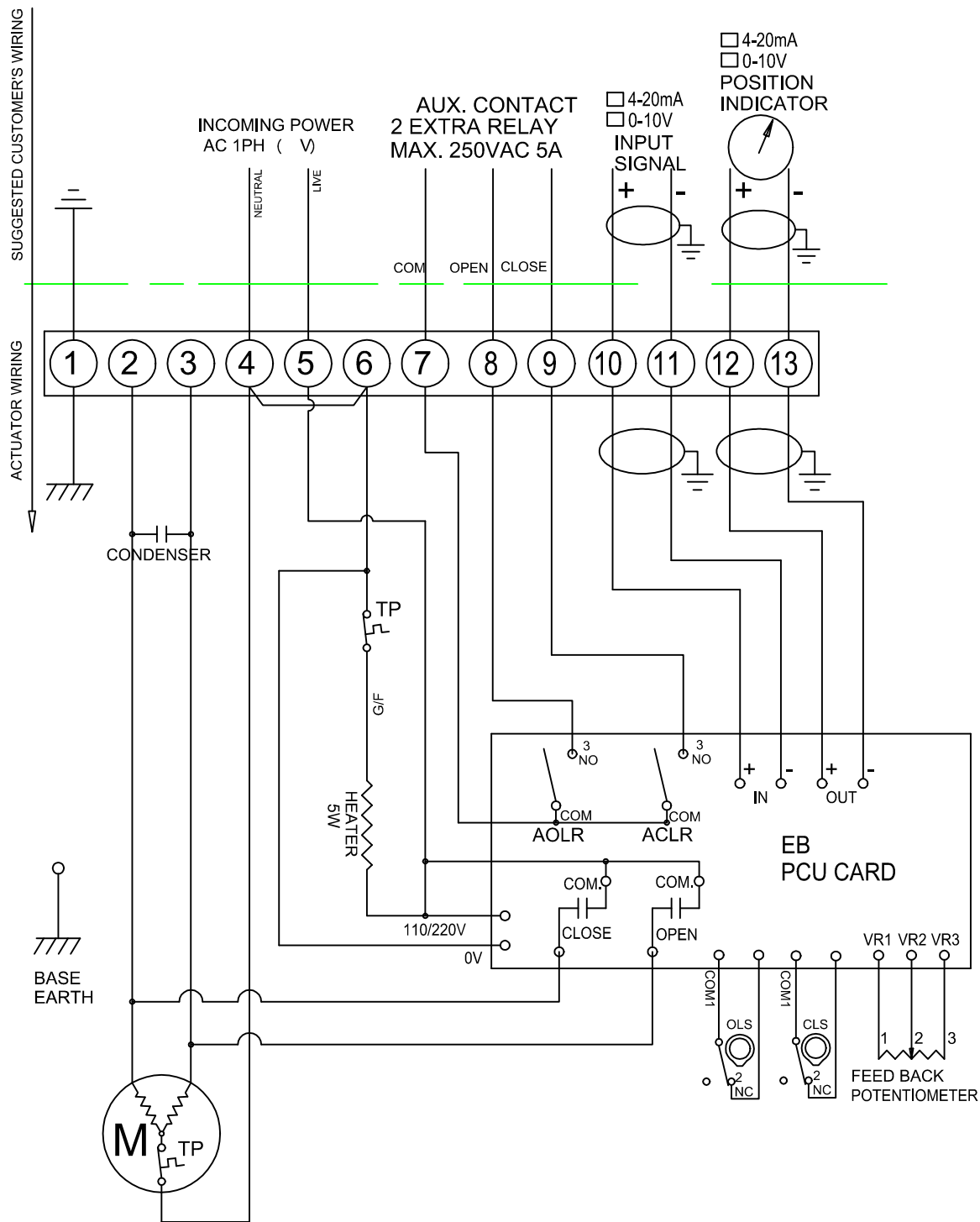
DATE 2018.2.21 ISSUE REF: D

HQ-006

APPLICATION

ACTUATED SOLUTIONS LTD
TEL: (01243) 827469
FAX: (01243) 829418

DOC : WD-01 1-09-2008



TORQUE AND LIMIT SWITCH OPERATION

SWITCH	CLOSE	INTERMEDIATE	OPEN
CLS 1-2			
CLS 1-3			
OLS 1-2			
OLS 1-3			

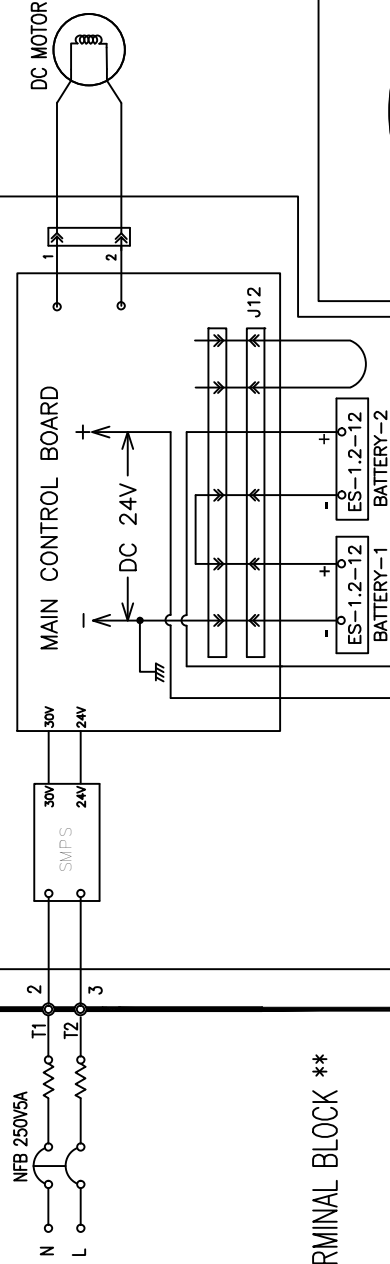
SYMBOL	DESCRIPTION	RATING
CLS	CLOSE LIMIT SWITCH	250VAC 10A
OLS	OPEN LIMIT SWITCH	250VAC 10A
TP	THERMAL PROTECTOR	250VAC 15A

*EACH ACTUATOR SHOULD BE POWERED THROUGH IT'S OWN INDIVIDUAL SWITCH OR RELAY CONTACTS TO PREVENT CROSS FEED BETWEEN TWO OR MORE ACTUATORS.

	PART NAME		1PH WIRING DIAGRAM
			STANDARD+PCU
	DWG. NO		HQ-1500-E
	DATE	22/11/18	ISSUE REF: E
	ACTUATED SOLUTIONS LTD TEL: (01243) 827469 FAX: (01243) 829418		
HQ-008			
APPLICATION			
DOC : WD-01 1-09-2008			

CUSTOMER SUPPLY

FIELD WIRING



** TERMINAL BLOCK **

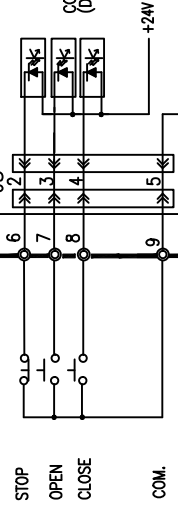
1	13
2	14
3	15
4	16
5	17
6	18
7	19
8	20
9	21
10	22
11	23
12	24

N L

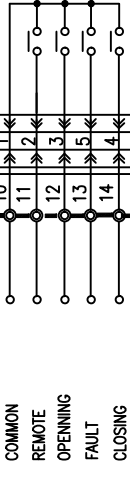
NOTE
After Power supplied (#2&3), please connect #1&4 together. Please make sure that #1&4 is connected and the connection should be maintained during supplying power. Connection #1&4 is for usage of battery in case of Power-Failure. Please Note. If power will not be supplied for a long period of time, please disconnect #1&4 in order to prolong the life of battery.

MUST CONNECT (SEE NOTE)

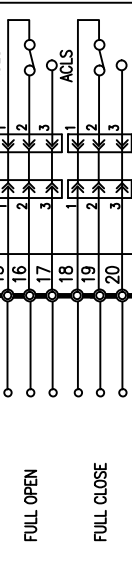
USER REMOTE CONTROL



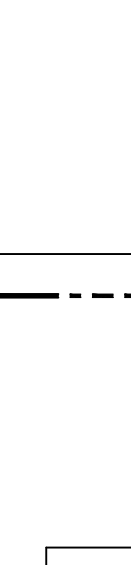
STATUS CONNECTOR



ADDITIONAL LIMIT SWITCH



OPTION IN SWITCH UNIT



HQ-008
APPLICATION

1 PHASE WIRING DIAGRAM
+ RBP + ALS

DWG. NO HQ - 9600-E

DATE 16.10.2014 ISSUE E

ACTUATED SOLUTIONS LTD
TEL: (01243) 827469
FAX: (01243) 829418

DOC : WD-01 1-09-2008

** NOTE **
Technical Explanation

OLS : OPEN LIMIT SWITCH
CLS : CLOSE LIMIT SWITCH

RL : RED LAMP FOR OPEN
GL : GREEN LAMP FOR CLOSE
YL : YELLOW LAMP FOR FAULT
◎ : MARKS FOR TERMINAL

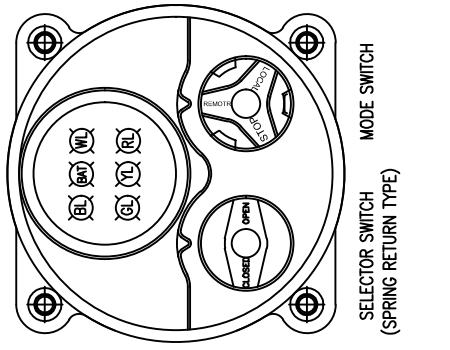
BAT : BATTERY LAMP MODE
GL : GREEN LAMP FULL RECHARGE
BL : BLUE LAMP MID RECHARGE
RL : RED LAMP LOW RECHARGE

WL : WHITE LAMP FOR POWER
BL : BLUE LAMP FOR REMOTE

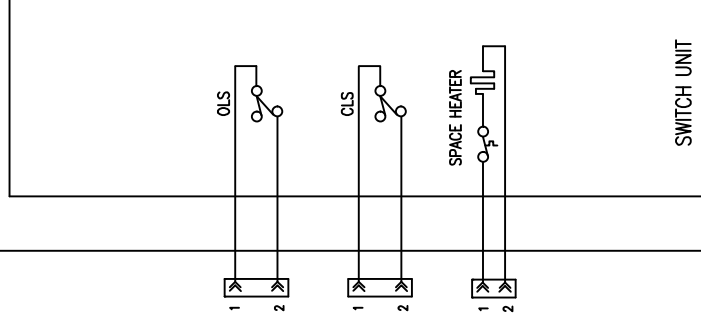
** LIMIT SWITCH CONTACT POSITIONS **

ROTOR	CON-TACT	VALVE OPENING (%)
OPEN (OLS)	1-3	0
CLOSE (CLS)	1-2	100
CLOSE (CLS)	1-3	
CLOSE (CLS)	1-2	

--- : CONTACT OFF
--- : CONTACT ON

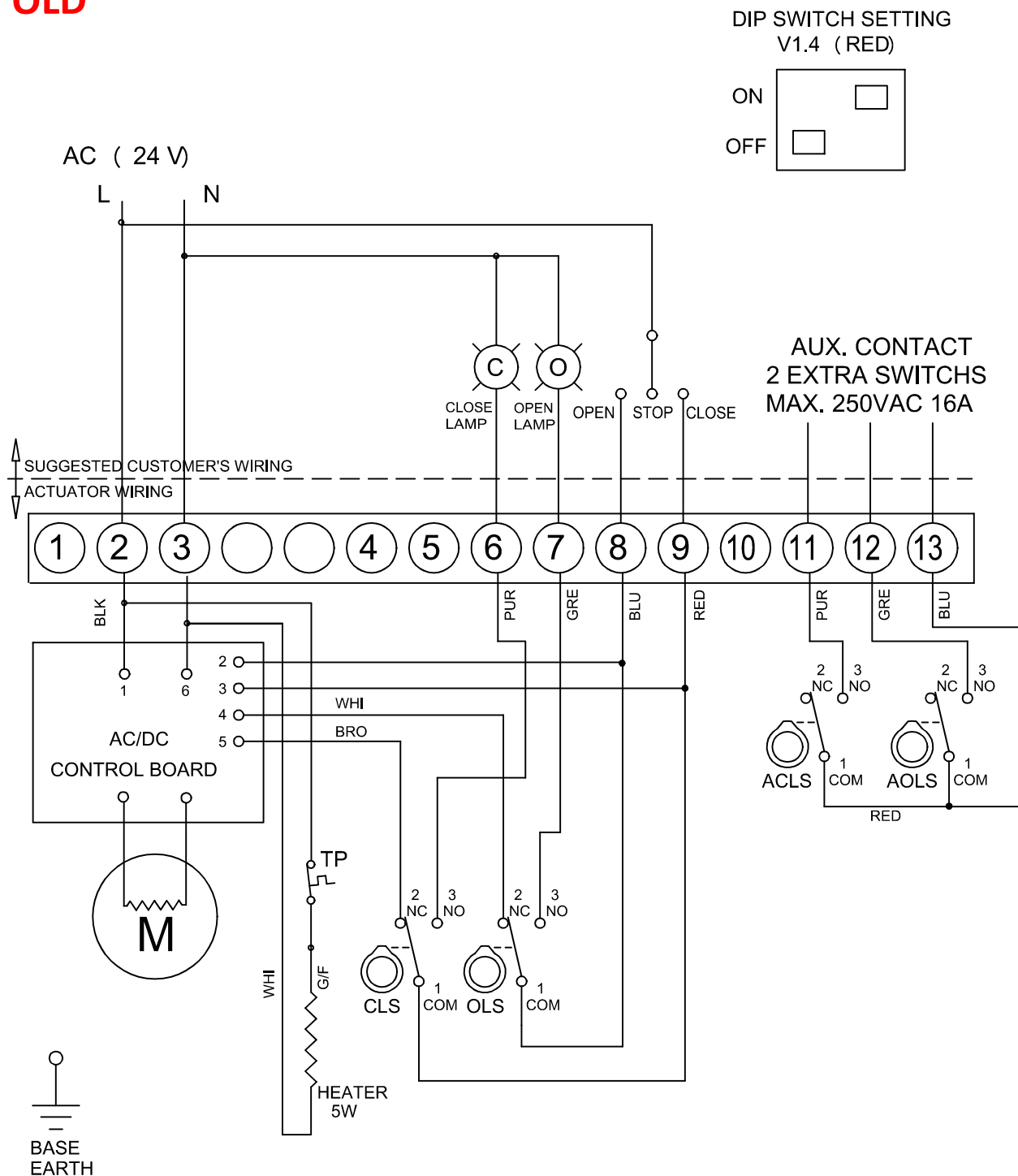


MODE SWITCH
SELECTOR SWITCH (SPRING RETURN TYPE)



SPACE HEATER

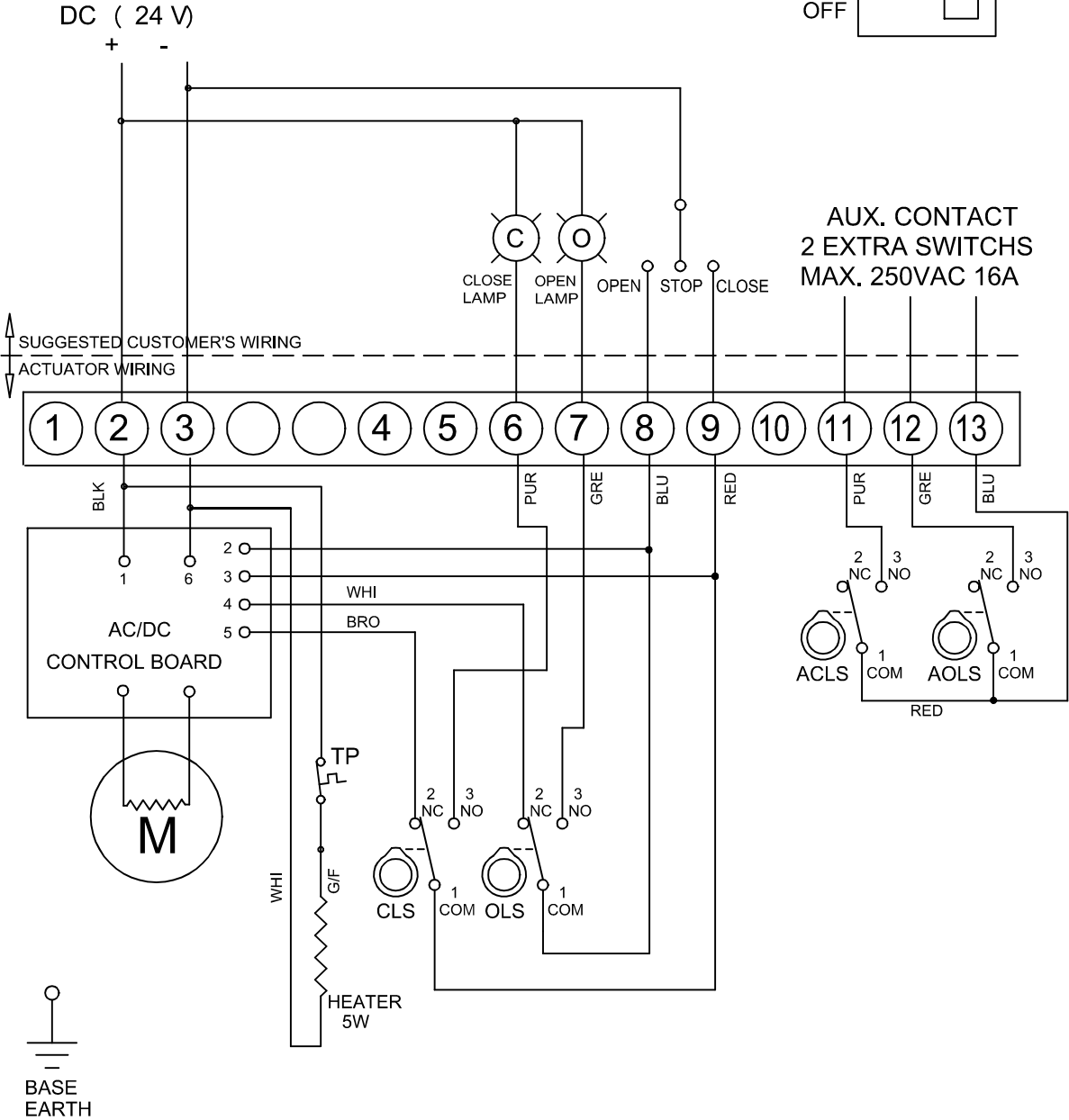
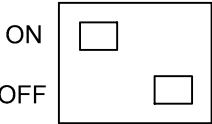
OLD



TORQUE AND LIMIT SWITCH OPERATION					
SWITCH	CLOSE ←	INTERMEDIATE	→ OPEN		
CLS 1-2					
CLS 1-3					
OLS 1-2					
OLS 1-3					
ACLS1-2					
ACLS1-3					
AOLS1-2					
AOLS1-3					
SYMBOL	DESCRIPTION			RATING	
CLS	CLOSE LIMIT SWITCH			250VAC 10A	
OLS	OPEN LIMIT SWITCH			250VAC 10A	
ACLS	AUX. CLOSE LIMIT SWITCH			250VAC 16A	
AOLS	AUX. OPEN LIMIT SWITCH			250VAC 16A	
TP	THERMAL PROTECTOR			250VAC 15A	
*EACH ACTUATOR SHOULD BE POWERED THROUGH IT'S OWN INDIVIDUAL SWITCH OR RELAY CONTACTS TO PREVENT CROSS FEED BETWEEN TWO OR MORE ACTUATORS.					
	PART NAME		AC WIRING DIAGRAM STANDARD		
	DWG. NO		HQ-7420-B		
	DATE 9.4.2024		ISSUE REF: B		
HQ-008	ACTUATED SOLUTIONS LTD TEL: (01243) 827469 FAX: (01243) 829418				
APPLICATION					
DOC : WD-01 1-09-2008					

OLD

DIP SWITCH SETTING
V1.4 (RED)



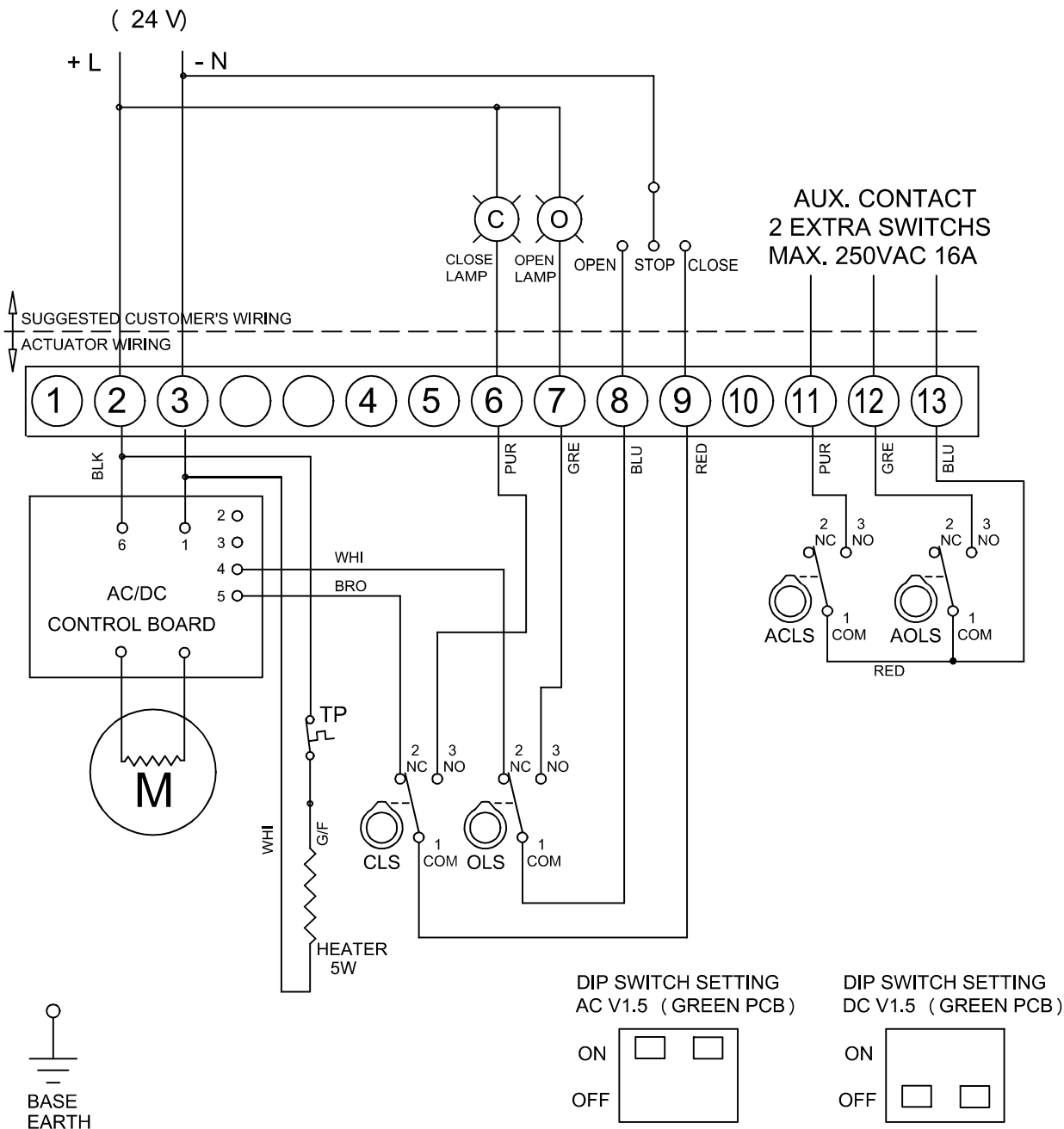
TORQUE AND LIMIT SWITCH OPERATION

SWITCH	CLOSE ←	INTERMEDIATE	→ OPEN
CLS 1-2			
CLS 1-3			
OLS 1-2			
OLS 1-3			
ACLS1-2			
ACLS1-3			
AOLS1-2			
AOLS1-3			

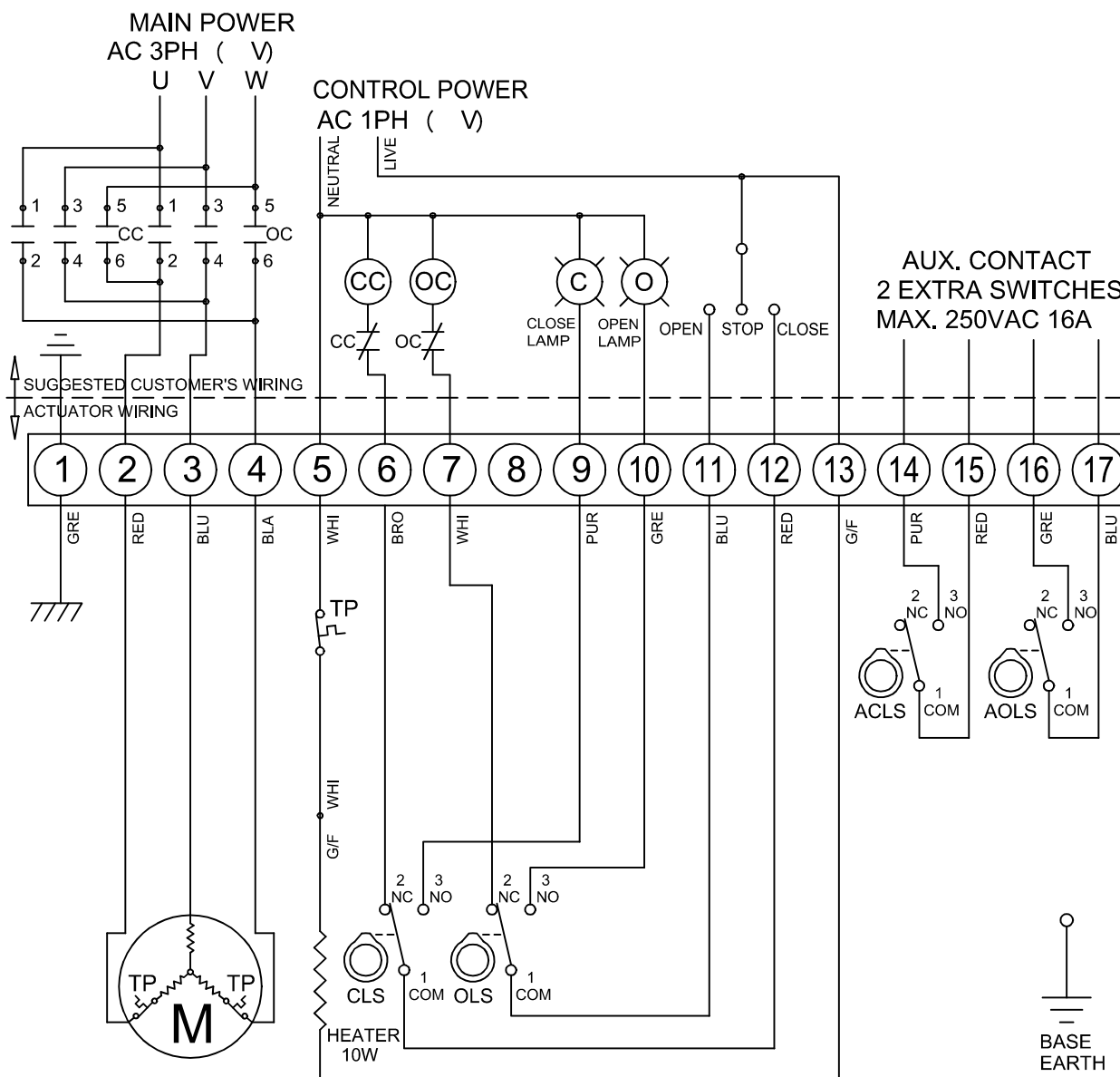
SYMBOL	DESCRIPTION	RATING
CLS	CLOSE LIMIT SWITCH	250VAC 10A
OLS	OPEN LIMIT SWITCH	250VAC 10A
ACLS	AUX. CLOSE LIMIT SWITCH	250VAC 16A
AOLS	AUX. OPEN LIMIT SWITCH	250VAC 16A
TP	THERMAL PROTECTOR	250VAC 15A

*EACH ACTUATOR SHOULD BE POWERED THROUGH IT'S OWN INDIVIDUAL SWITCH OR RELAY CONTACTS TO PREVENT CROSS FEED BETWEEN TWO OR MORE ACTUATORS.

	PART NAME DC WIRING DIAGRAM STANDARD	
	DWG. NO HQ-8420-B	
	DATE 9.4.2024	ISSUE REF: B
HQ-008	ACTUATED SOLUTIONS LTD TEL: (01243) 827469 FAX: (01243) 829418	
APPLICATION		

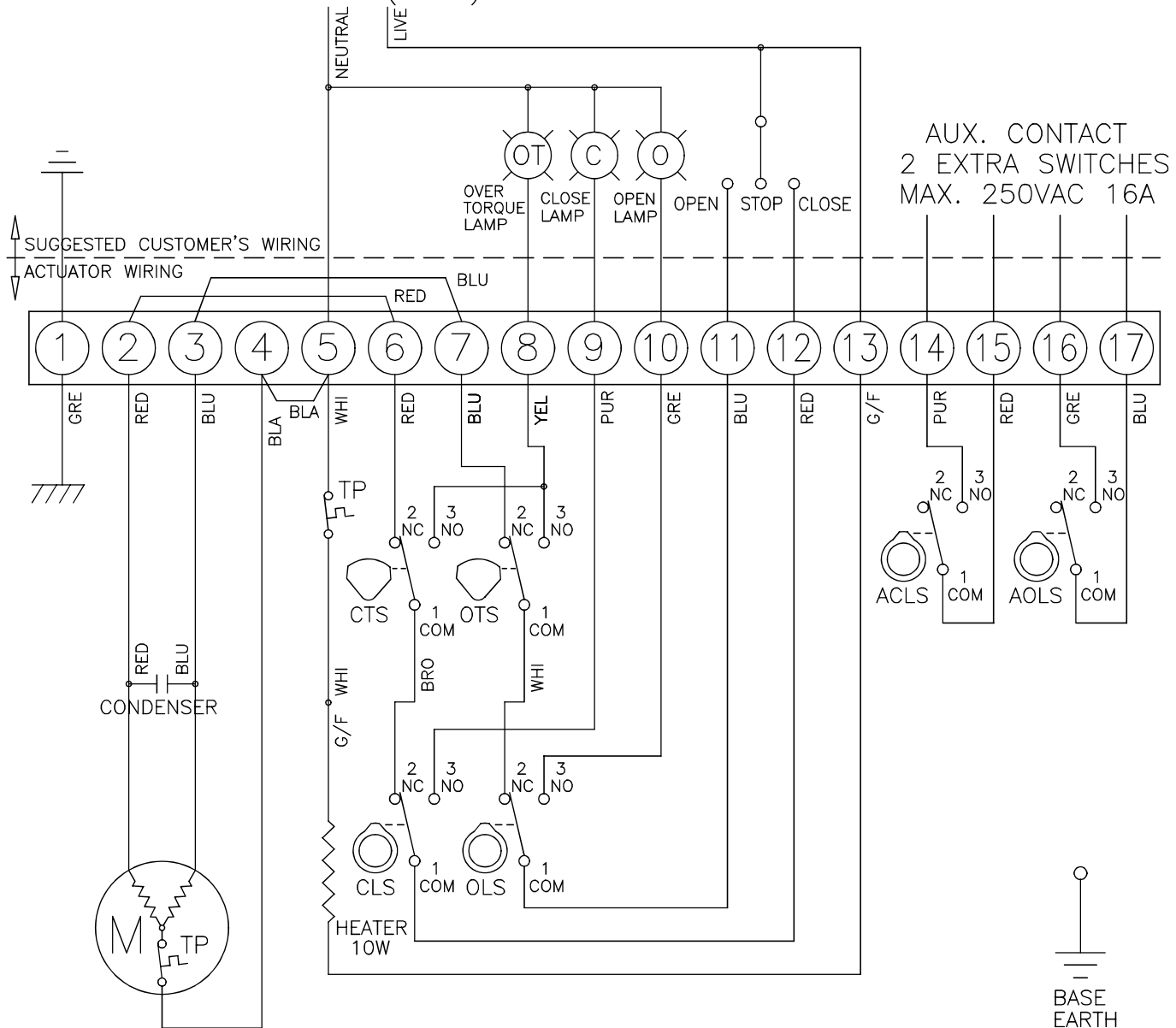


TORQUE AND LIMIT SWITCH OPERATION			
SWITCH		CLOSE	← INTERMEDIATE → OPEN
CLS 1-2			
CLS 1-3			
OLS 1-2			
OLS 1-3			
ACLS1-2			
ACLS1-3			
AOLS1-2			
AOLS1-3			
SYMBOL	DESCRIPTION		RATING
CLS	CLOSE LIMIT SWITCH		250VAC 10A
OLS	OPEN LIMIT SWITCH		250VAC 10A
ACLS	AUX. CLOSE LIMIT SWITCH		250VAC 16A
AOLS	AUX. OPEN LIMIT SWITCH		250VAC 16A
TP	THERMAL PROTECTOR		250VAC 15A
*EACH ACTUATOR SHOULD BE POWERED THROUGH IT'S OWN INDIVIDUAL SWITCH OR RELAY CONTACTS TO PREVENT CROSS FEED BETWEEN TWO OR MORE ACTUATORS.			
	PART NAME	AC/DC WIRING DIAGRAM STANDARD	
		DWG. NO HQ-8420-V1.5	
	DATE	21.5.2024	ISSUE REF: A
	HQ-008	ACTUATED SOLUTIONS LTD	
		TEL: (01243) 827469	
APPLICATION		FAX: (01243) 829418	
DOC : WD-01 1-09-2008			



TORQUE AND LIMIT SWITCH OPERATION		
SWITCH	CLOSE ←	INTERMEDIATE → OPEN
CLS 1-2		
CLS 1-3		
OLS 1-2		
OLS 1-3		
ACLS1-2		
ACLS1-3		
AOLS1-2		
AOLS1-3		
CTS 1-3	* CLOSING TORQUE SWITCH INTERRUPTS CONTROL IF MECHANICAL OVERLOAD OCCURS DURING CLOSING CYCLE	
OTS 1-3	* OPENING TORQUE SWITCH INTERRUPTS CONTROL IF MECHANICAL OVERLOAD OCCURS DURING OPENING CYCLE	
SYMBOL	DESCRIPTION	RATING
CLS	CLOSE LIMIT SWITCH	250VAC 10A
OLS	OPEN LIMIT SWITCH	250VAC 10A
ACLS	AUX. CLOSE LIMIT SWITCH	250VAC 16A
AOLS	AUX. OPEN LIMIT SWITCH	250VAC 16A
CC	CLOSE MAGNETIC COIL	
OC	OPEN MAGNETIC COIL	
TP	THERMAL PROTECTOR	250VAC 15A
*EACH ACTUATOR SHOULD BE POWERED THROUGH IT'S OWN INDIVIDUAL SWITCH OR RELAY CONTACTS TO PREVENT CROSS FEED BETWEEN TWO OR MORE ACTUATORS.		
	3 PHASE WIRING DIAGRAM STANDARD	
	DWG. NO HQ-3200-A	
	DATE 1/4/2010	ISSUE REF: A
HQ-010	ACTUATED SOLUTIONS LTD TEL: (01243) 827469 FAX: (01243) 829418	
HQ-008		
APPLICATION		
DOC : WD-01 1-09-2008		

INCOMING POWER
AC 1PH (V)

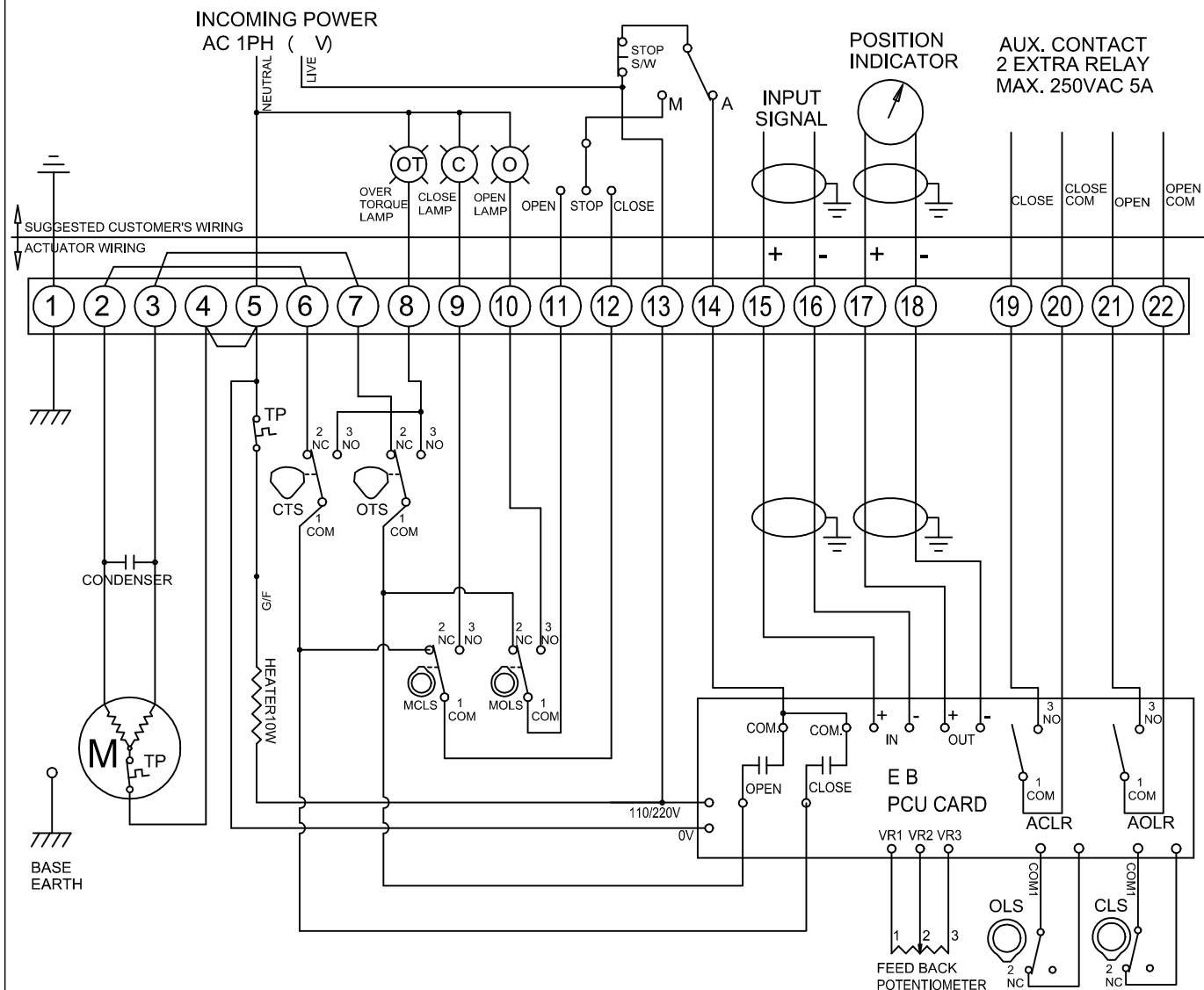


TORQUE AND LIMIT SWITCH OPERATION

SWITCH	CLOSE ←	INTERMEDIATE	→ OPEN
CLS 1-2			
CLS 1-3			
OLS 1-2			
OLS 1-3			
ACLS 1-2			
ACLS 1-3			
AOLS 1-2			
AOLS 1-3			
CTS 1-3	* CLOSING TORQUE SWITCH INTERRUPTS CONTROL IF MECHANICAL OVERLOAD OCCURS DURING CLOSING CYCLE		
OTS 1-3	* OPENING TORQUE SWITCH INTERRUPTS CONTROL IF MECHANICAL OVERLOAD OCCURS DURING OPENING CYCLE		
SYMBOL	DESCRIPTION		RATING
CLS	CLOSE LIMIT SWITCH		250VAC 10A
OLS	OPEN LIMIT SWITCH		250VAC 10A
CTS	CLOSE TORQUE SWITCH		250VAC 10A
OTS	OPEN TORQUE SWITCH		250VAC 10A
ACLS	AUX. CLOSE LIMIT SWITCH		250VAC 16A
AOLS	AUX. OPEN LIMIT SWITCH		250VAC 16A
TP	THERMAL PROTECTOR		250VAC 15A

*EACH ACTUATOR SHOULD BE POWERED THROUGH IT'S OWN INDIVIDUAL SWITCH OR RELAY CONTACTS TO PREVENT CROSS FEED BETWEEN TWO OR MORE ACTUATORS.

HQ-300	1 PHASE WIRING DIAGRAM STANDARD	
HQ-200		
HQ-120		
HQ-080		
HQ-060	DWG. NO HQ-11000-A	
HQ-050	DATE 10/5/2001	ISSUE REF: A
HQ-030	ACTUATED SOLUTIONS LTD TEL: (01243) 827469 FAX: (01243) 829418	
HQ-020		
HQ-015		
APPLICATION		



TORQUE AND LIMIT SWITCH OPERATION

SWITCH	CLOSE	INTERMEDIATE	OPEN
CLS 1-2			
OLS 1-2			
MCLS1-2			
MCLS1-3			
MOLS1-2			
MOLS1-3			
ACLR1-3			
AOLR1-3			
CTS 1-3	* CLOSING TORQUE SWITCH INTERRUPTS CONTROL IF MECHANICAL OVERLOAD OCCURS DURING CLOSING CYCLE		
OTS 1-3	* OPENING TORQUE SWITCH INTERRUPTS CONTROL IF MECHANICAL OVERLOAD OCCURS DURING OPENING CYCLE		
SYMBOL	DESCRIPTION		RATING
CLS	CLOSE LIMIT SWITCH		250VAC 10A
OLS	OPEN LIMIT SWITCH		250VAC 10A
CTS	CLOSE TORQUE SWITCH		250VAC 10A
OTS	OPEN TORQUE SWITCH		250VAC 10A
ACLR	AUX. CLOSE LIMIT RELAY		250VAC 5A
AOLR	AUX. OPEN LIMIT RELAY		250VAC 5A
TP	THERMAL PROTECTOR		250VAC 15A
MCLS	MANUAL CLOSE LIMIT SWITCH		250VAC 10A
MOLS	MANUAL OPEN LIMIT SWITCH		250VAC 10A

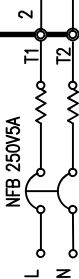
*EACH ACTUATOR SHOULD BE POWERED THROUGH IT'S OWN INDIVIDUAL SWITCH OR RELAY CONTACTS TO PREVENT CROSS FEED BETWEEN TWO OR MORE ACTUATORS.

HQ-300	1PH WIRING DIAGRAM PCU	
HQ-200		
HQ-120		
HQ-080		
HQ-060	DWG. NO	HQ-15000-E
HQ-050		
HQ-030	DATE	12/11/18
HQ-020	ISSUE REF: E	
HQ-015		
APPLICATION		

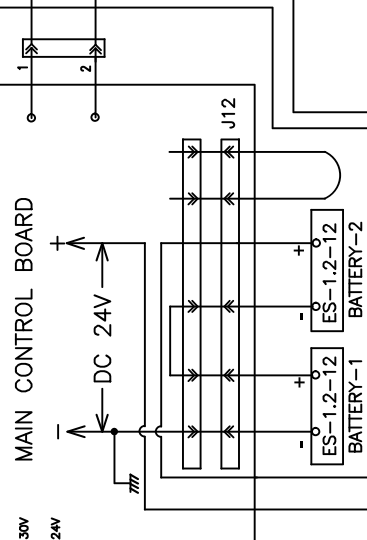
DOC : WD-012 1-09-2008

CUSTOMER SUPPLY

FIELD WIRING



MAIN CONTROL BOARD



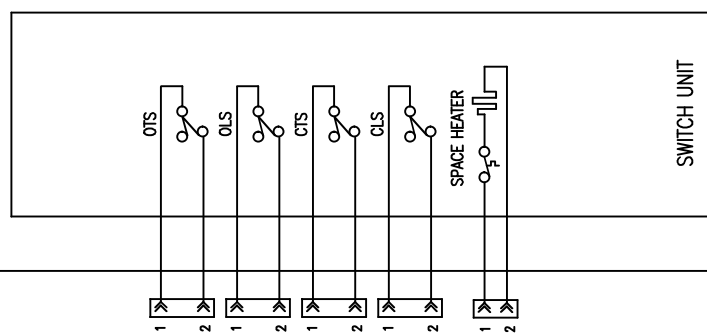
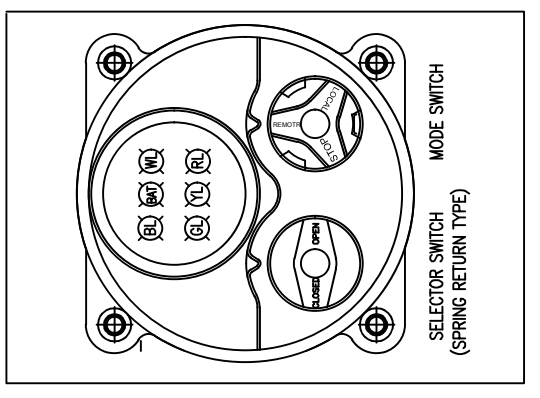
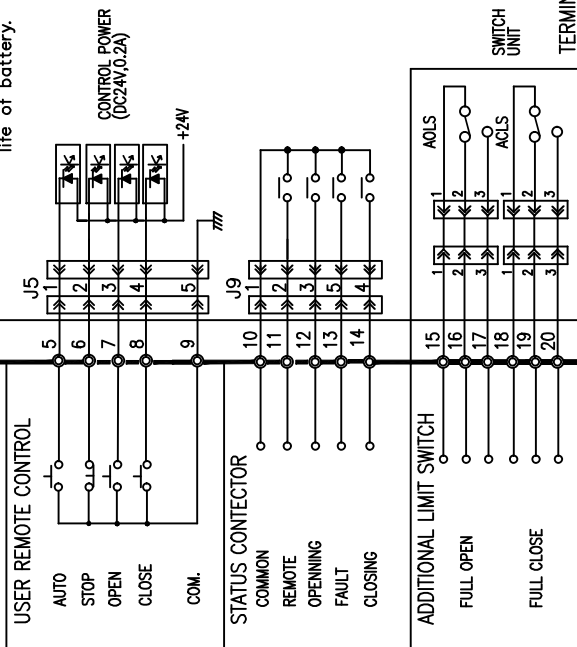
** TERMINAL BLOCK **

1	13
2	14
3	15
4	16
5	17
6	18
7	19
8	20
9	21
10	22
11	23
12	24

- N O T E

After Power supplied (#2&3), please connect #1&4 together.
Please make sure that #1&4 is connected and the connection should be maintained during supplying power.
Connected #1&4 is for usage of battery in case of Power-Failure. Please be noted.
If power will not be supplied for a long time, please disconnect #1&4 in order to prolong the life of battery.

MUST CONNECT (SEE NOTE)



** NOTE **
Technical Explanation

BAT : BATTERY LAMP MODE
GL : GREEN LAMP FULL RECHARGE
BL : BLUE LAMP MID RECHARGE
RL : RED LAMP LOW RECHARGE
OLS : OPEN LIMIT SWITCH
CLS : CLOSE LIMIT SWITCH
OTS : OPEN TORQUE LIMIT SWITCH
CTS : CLOSE TORQUE LIMIT SWITCH
RL : RED LAMP FOR OPEN
GL : GREEN LAMP FOR CLOSE
BL : BLUE LAMP FOR REMOTE
YL : YELLOW LAMP FOR FAULT
◎ : MARKS FOR TERMINAL

** LIMIT SWITCH CONTACT POSITIONS **		
CON-ROTOR	VALVE OPENING (%)	
FACT	0	100
OPEN	1-3	
(OLS)	1-2	
CLOSE	1-3	
(CLS)	1-2	

— : CONTACT ON
---- : CONTACT OFF

HQ-300	1 PHASE WIRING DIAGRAM	
HQ-200	RBP	
HQ-120	DWG. NO HQ - 96000-F	
HQ-080	DATE 17.8.2020	
HQ-060	ISSUE REF: F	
HQ-030	ACTUATED SOLUTIONS LTD	
HQ-020	TEL : (01243) 827469	
HQ-015	FAX : (01243) 829418	
APPLICATION		

OLD

DIP SWITCH SETTING
V1.4 (RED)

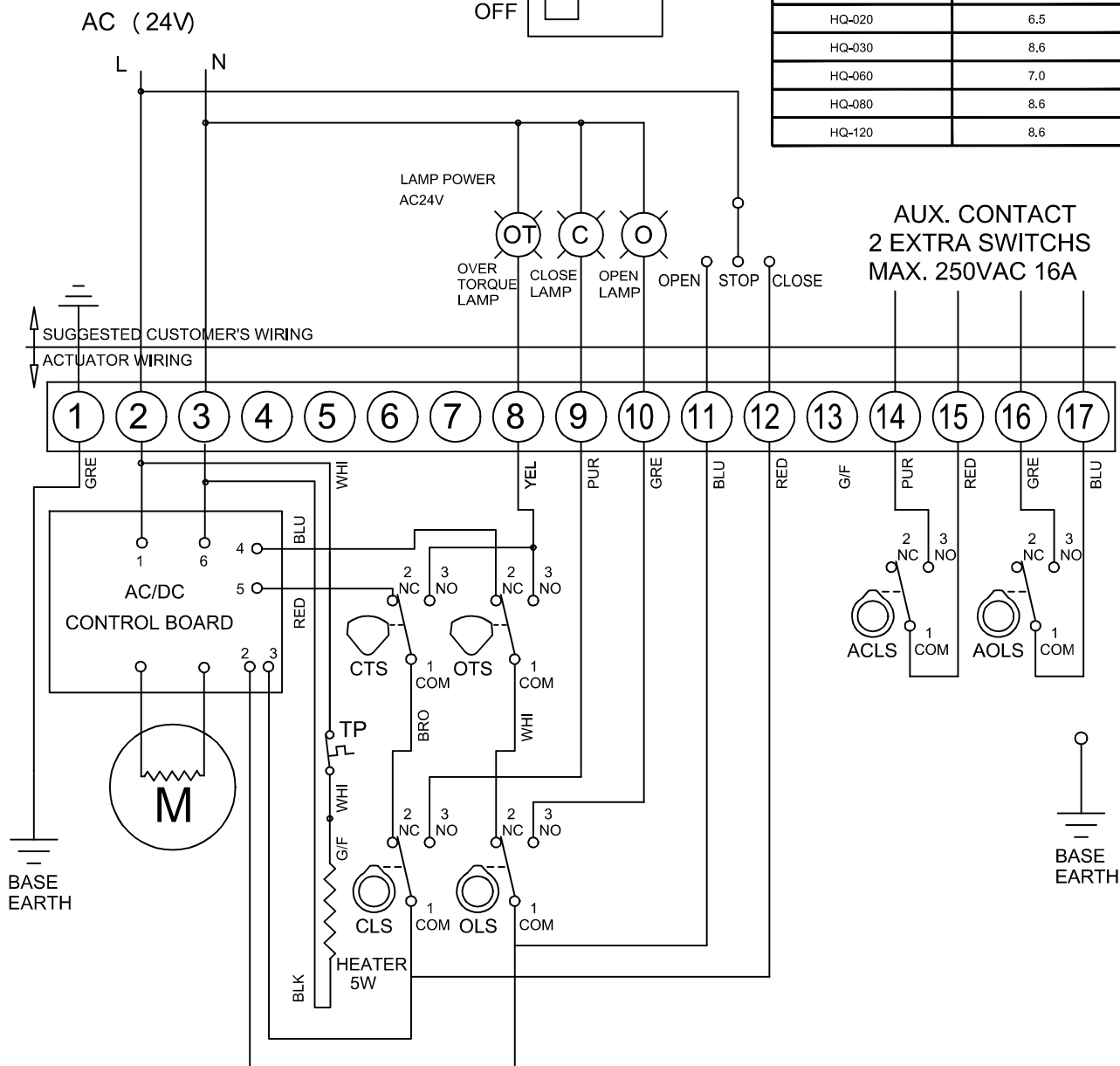
ON

OFF

IMPORTANT NOTE: ENSURE THAT ADEQUATE POWER IS AVAILABLE. FAILURE TO DO SO WILL RESULT IN DAMAGE TO THE ELECTRONICS.

MODEL	MINIMUM AMPS
HQ-015	5.3
HQ-020	6.5
HQ-030	8.6
HQ-060	7.0
HQ-080	8.6
HQ-120	8.6

AUX. CONTACT
2 EXTRA SWITCHES
MAX. 250VAC 16A



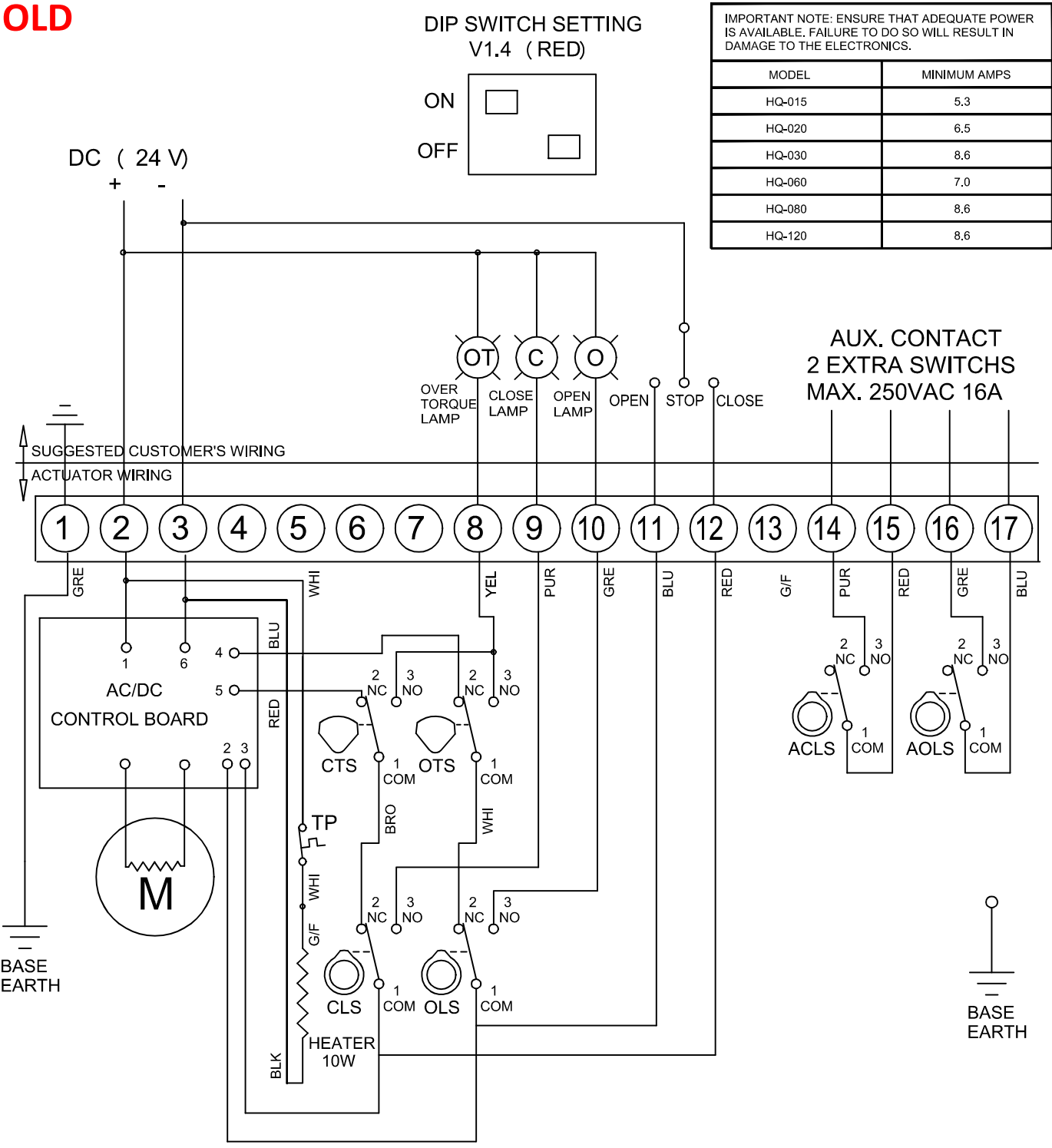
TORQUE AND LIMIT SWITCH OPERATION

SWITCH	CLOSE ← INTERMEDIATE → OPEN	
CLS 1-2		
CLS 1-3		
OLS 1-2		
OLS 1-3		
ACLS1-2		
ACLS1-3		
AOLS1-2		
AOLS1-3		
CTS 1-3	* CLOSING TORQUE SWITCH INTERRUPTS CONTROL IF MECHANICAL OVERLOAD OCCURS DURING CLOSING CYCLE	
OTS 1-3	* OPENING TORQUE SWITCH INTERRUPTS CONTROL IF MECHANICAL OVERLOAD OCCURS DURING OPENING CYCLE	
SYMBOL	DESCRIPTION	RATING
CLS	CLOSE LIMIT SWITCH	250VAC 10A
OLS	OPEN LIMIT SWITCH	250VAC 10A
CTS	CLOSE TORQUE SWITCH	250VAC 10A
OTS	OPEN TORQUE SWITCH	250VAC 10A
ACLS	AUX. CLOSE LIMIT SWITCH	250VAC 16A
AOLS	AUX. OPEN LIMIT SWITCH	250VAC 16A
TP	THERMAL PROTECTOR	24VAC/DC

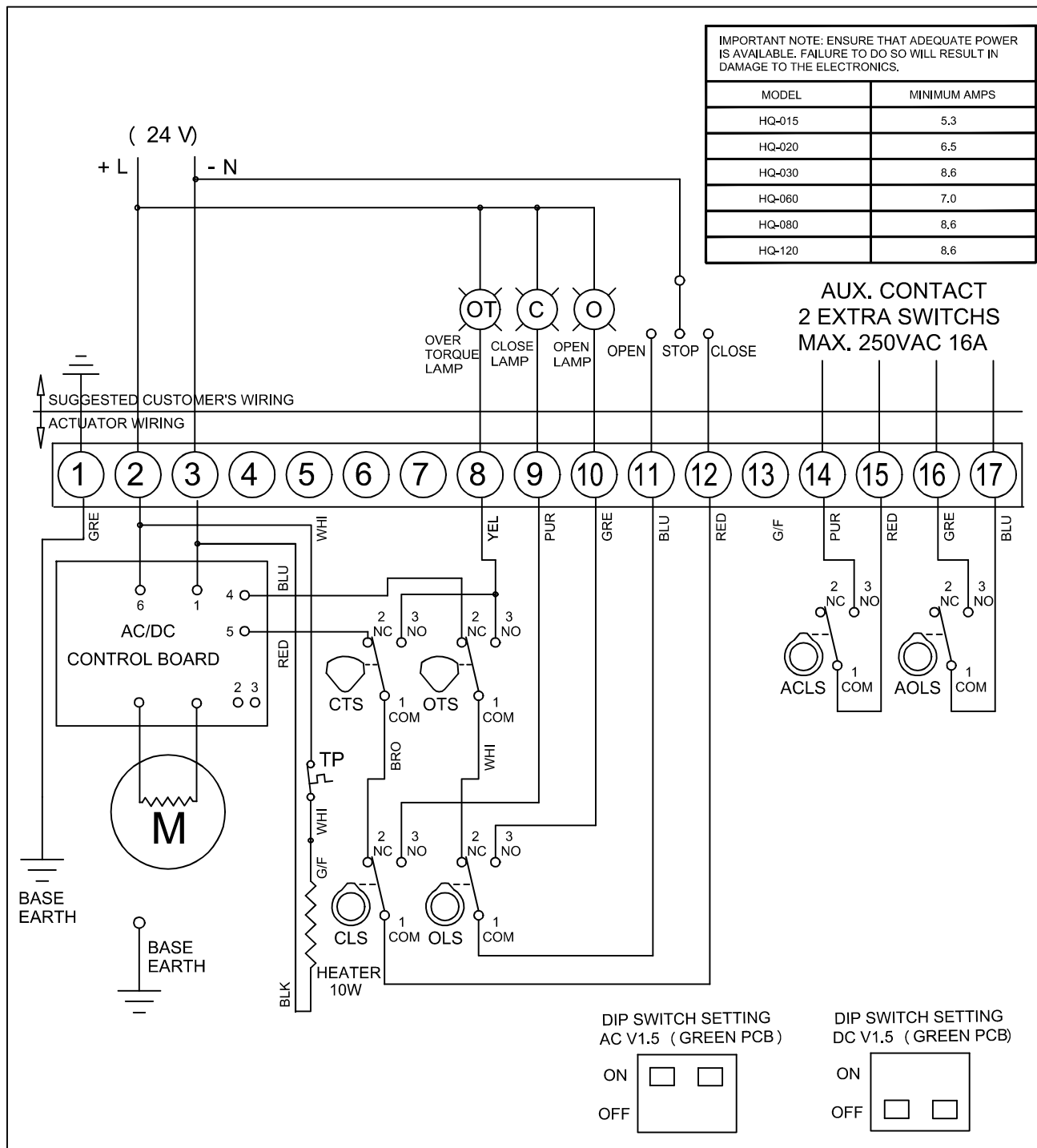
*EACH ACTUATOR SHOULD BE POWERED THROUGH IT'S OWN INDIVIDUAL SWITCH OR RELAY CONTACTS TO PREVENT CROSS FEED BETWEEN TWO OR MORE ACTUATORS.

	PART NAME AC WIRING DIAGRAM 24v STANDARD	
HQ-120		
HQ-080	DWG. NO HQ-74000-B	
HQ-060		
HQ-030	DATE 17.8.2020	ISSUE REF: B
HQ-020	ACTUATED SOLUTIONS LTD TEL: (01243) 827469 FAX: (01243) 829418	
HQ-015		
APPLICATION		
DOC : WD-01 1-09-2008		

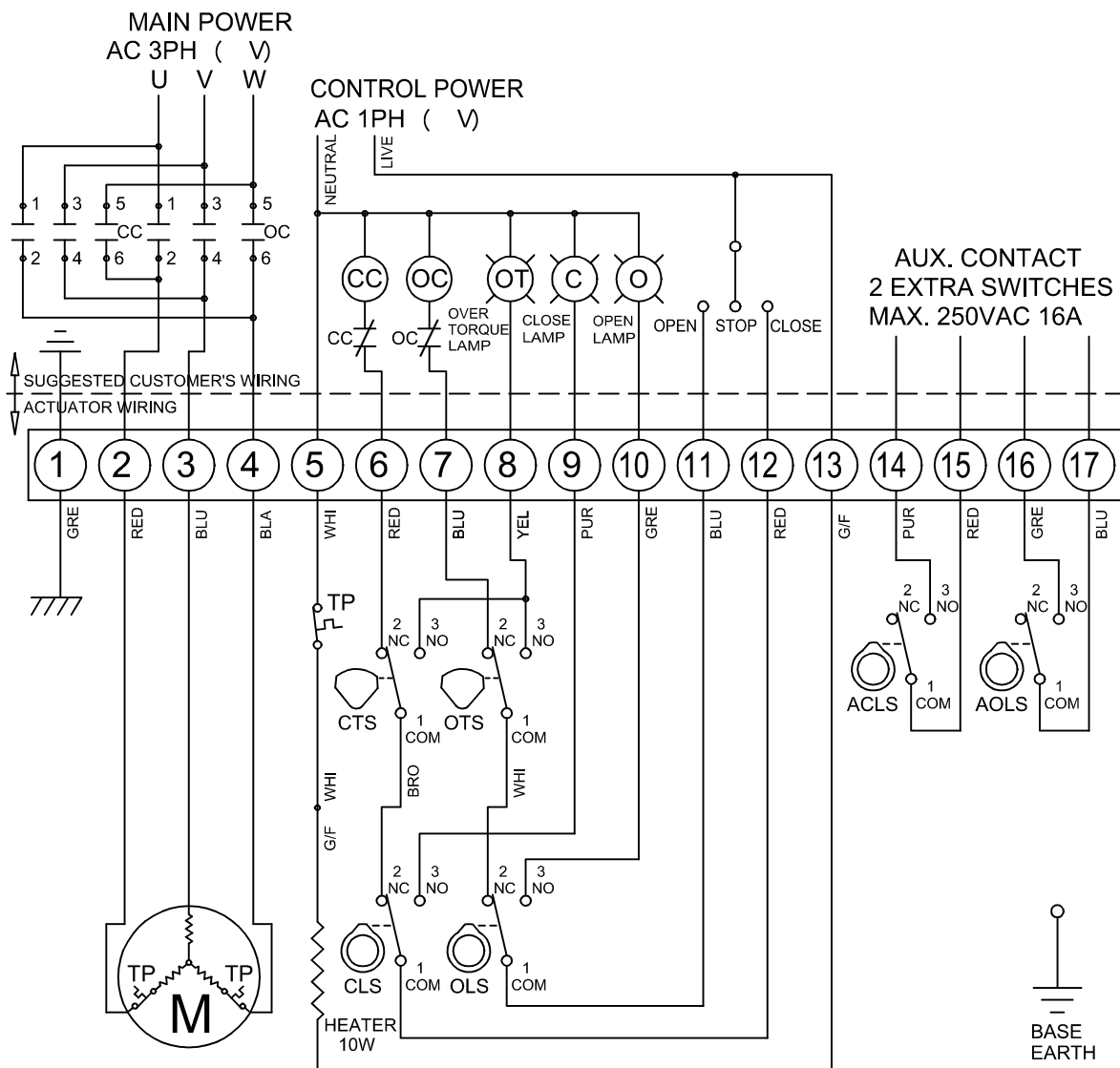
OLD



TORQUE AND LIMIT SWITCH OPERATION			
SWITCH	CLOSE ← INTERMEDIATE → OPEN		
CLS 1-2			
CLS 1-3			
OLS 1-2			
OLS 1-3			
ACLS1-2			
ACLS1-3			
AOLS1-2			
AOLS1-3			
CTS 1-3	* CLOSING TORQUE SWITCH INTERRUPTS CONTROL IF		
	MECHANICAL OVERLOAD OCCURS DURING CLOSING CYCLE		
OTS 1-3	* OPENING TORQUE SWITCH INTERRUPTS CONTROL IF		
	MECHANICAL OVERLOAD OCCURS DURING OPENING CYCLE		
SYMBOL	DESCRIPTION		RATING
CLS	CLOSE LIMIT SWITCH		250VAC 10A
OLS	OPEN LIMIT SWITCH		250VAC 10A
CTS	CLOSE TORQUE SWITCH		250VAC 10A
OTS	OPEN TORQUE SWITCH		250VAC 10A
ACLS	AUX. CLOSE LIMIT SWITCH		250VAC 16A
AOLS	AUX. OPEN LIMIT SWITCH		250VAC 16A
TP	THERMAL PROTECTOR		250VAC 15A
*EACH ACTUATOR SHOULD BE POWERED THROUGH IT'S OWN INDIVIDUAL SWITCH OR RELAY CONTACTS TO PREVENT CROSS FEED BETWEEN TWO OR MORE ACTUATORS.			
		PART NAME DC WIRING DIAGRAM STANDARD	
HQ-120			
HQ-080			
HQ-060		DWG. NO HQ-84000-B	
HQ-030		DATE 17.8.2020	ISSUE REF: B
HQ-020		ACTUATED SOLUTIONS LTD TEL: (01243) 827469 FAX: (01243) 829418	
HQ-015			
APPLICATION			
DOC : WD-01 1-09-2008			



TORQUE AND LIMIT SWITCH OPERATION			
SWITCH	CLOSE	INTERMEDIATE	OPEN
CLS 1-2			
CLS 1-3			
OLS 1-2			
OLS 1-3			
ACLS1-2			
ACLS1-3			
AOLS1-2			
AOLS1-3			
CTS 1-3	* CLOSING TORQUE SWITCH INTERRUPTS CONTROL IF		
	MECHANICAL OVERLOAD OCCURS DURING CLOSING CYCLE		
OTS 1-3	* OPENING TORQUE SWITCH INTERRUPTS CONTROL IF		
	MECHANICAL OVERLOAD OCCURS DURING OPENING CYCLE		
SYMBOL	DESCRIPTION		RATING
CLS	CLOSE LIMIT SWITCH		250VAC 10A
OLS	OPEN LIMIT SWITCH		250VAC 10A
CTS	CLOSE TORQUE SWITCH		250VAC 10A
OTS	OPEN TORQUE SWITCH		250VAC 10A
ACLS	AUX. CLOSE LIMIT SWITCH		250VAC 16A
AOLS	AUX. OPEN LIMIT SWITCH		250VAC 16A
TP	THERMAL PROTECTOR		250VAC 15A
*EACH ACTUATOR SHOULD BE POWERED THROUGH IT'S OWN INDIVIDUAL SWITCH OR RELAY CONTACTS TO PREVENT CROSS FEED BETWEEN TWO OR MORE ACTUATORS.			
	PART NAME AC/DC WIRING DIAGRAM STANDARD		
HQ-120	DWG. NO HQ-84000-V1.5		
HQ-080	DATE 21.5.2024 ISSUE REF: A		
HQ-060	ACTUATED SOLUTIONS LTD		
HQ-030	TEL: (01243) 827469		
HQ-020	FAX: (01243) 829418		
HQ-015			
APPLICATION			
DOC : WD-01 1-09-2008			



TORQUE AND LIMIT SWITCH OPERATION

SWITCH	CLOSE	←	INTERMEDIATE	→	OPEN
CLS 1-2					
CLS 1-3					
OLS 1-2					
OLS 1-3					
ACLS1-2					
ACLS1-3					
AOLS1-2					
AOLS1-3					
CTS 1-3	* CLOSING TORQUE SWITCH INTERRUPTS CONTROL IF				
	MECHANICAL OVERLOAD OCCURS DURING CLOSING CYCLE				
OTS 1-3	* OPENING TORQUE SWITCH INTERRUPTS CONTROL IF				
	MECHANICAL OVERLOAD OCCURS DURING OPENING CYCLE				
SYMBOL	DESCRIPTION				RATING
CLS	CLOSE LIMIT SWITCH				250VAC 10A
OLS	OPEN LIMIT SWITCH				250VAC 10A
CTS	CLOSE TORQUE SWITCH				250VAC 10A
OTS	OPEN TORQUE SWITCH				250VAC 10A
ACLS	AUX. CLOSE LIMIT SWITCH				250VAC 16A
AOLS	AUX. OPEN LIMIT SWITCH				250VAC 16A
CC	CLOSE MAGNETIC COIL				
OC	OPEN MAGNETIC COIL				
TP	THERMAL PROTECTOR				250VAC 15A

*EACH ACTUATOR SHOULD BE POWERED THROUGH IT'S OWN INDIVIDUAL SWITCH OR RELAY CONTACTS TO PREVENT CROSS FEED BETWEEN TWO OR MORE ACTUATORS.

HQ-300	3 PHASE WIRING DIAGRAM STANDARD	
HQ-200		
HQ-120		
HQ-080		
HQ-060	DWG. NO HQ-31000-A	
HQ-050		
HQ-030	DATE 10/5/2001	ISSUE REF: A
HQ-020	ACTUATED SOLUTIONS LTD TEL: (01243) 827469 FAX: (01243) 829418	
HQ-015		
APPLICATION		
DOC : WD-01 1-09-2008		