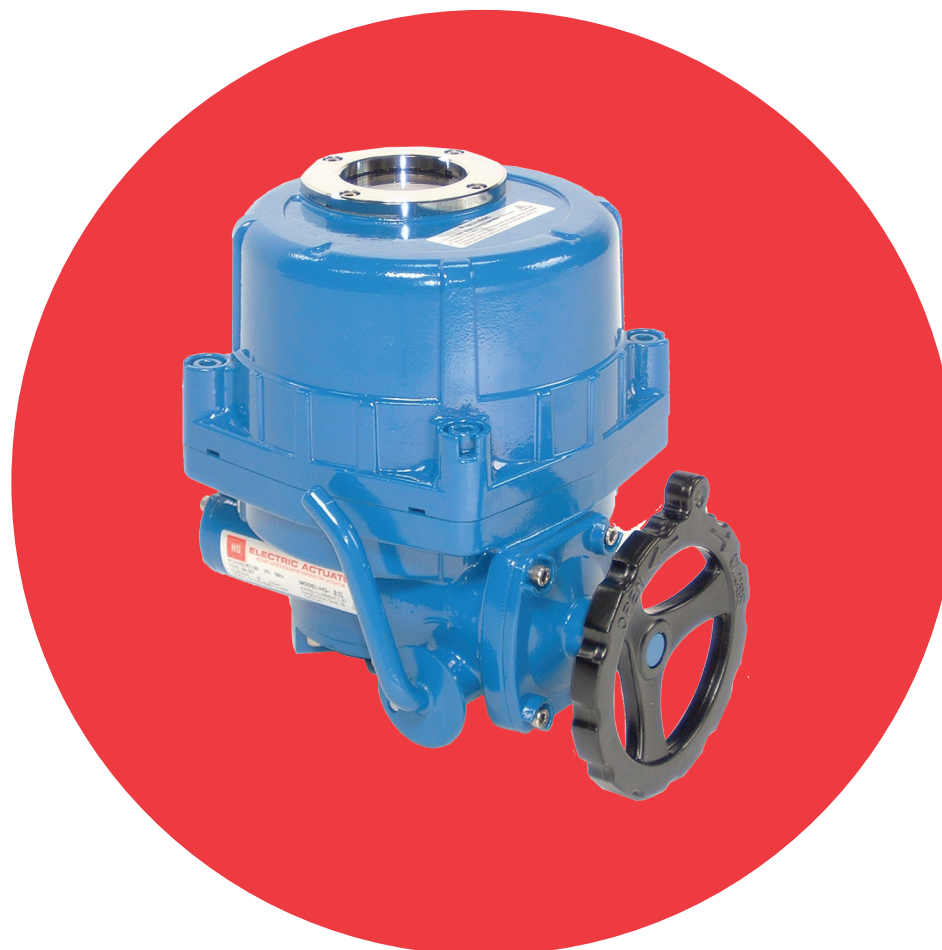
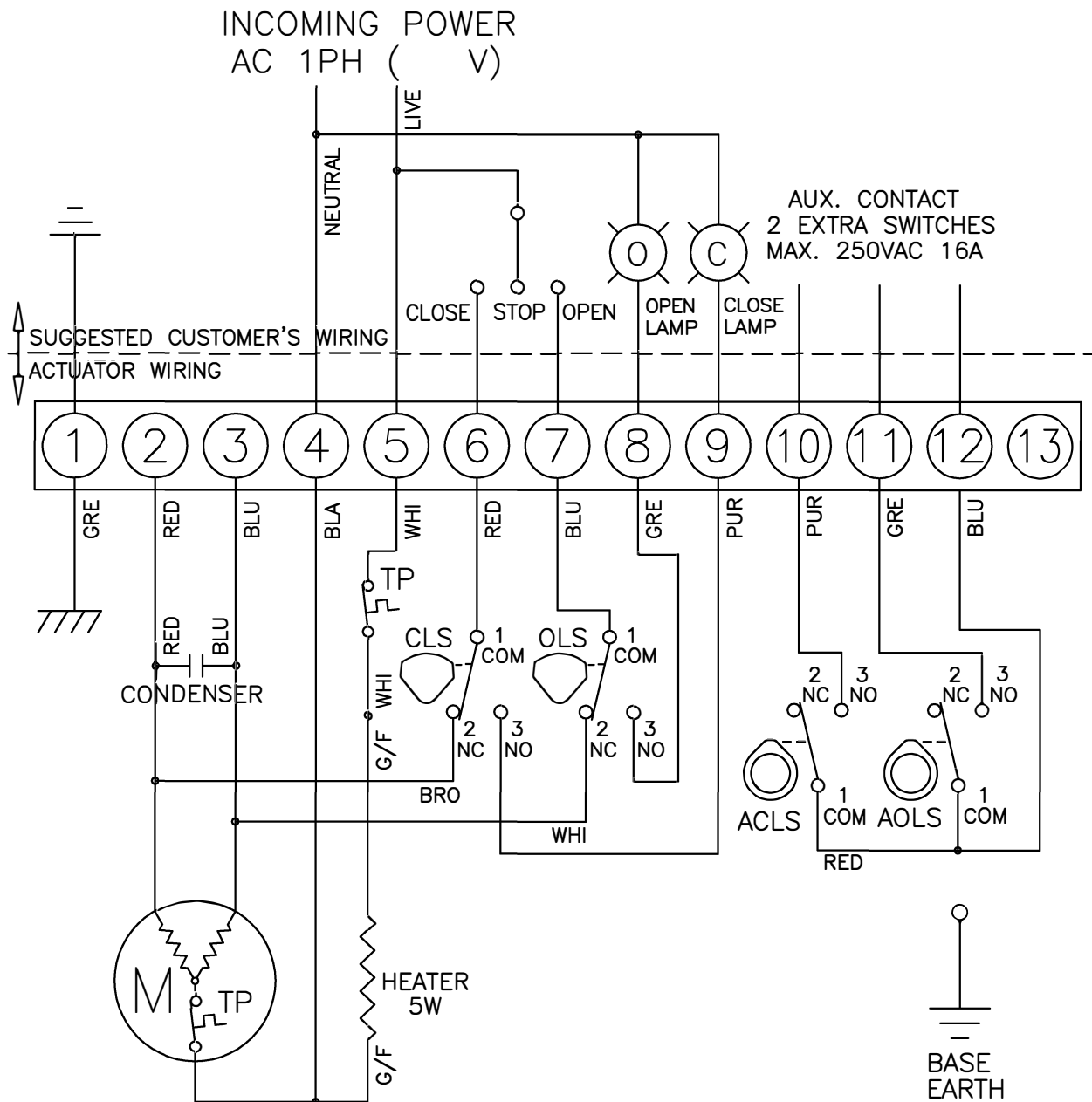


Wiring Diagrams



HQ8 **HQ Series 1/4 Turn** **Electric Actuator**

Albion Valves (UK) Ltd
www.albionvalvesuk.com
Email: sales@albionvalvesuk.com
Tel: 01226 729900



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.

1 PHASE WIRING DIAGRAM
STANDARD

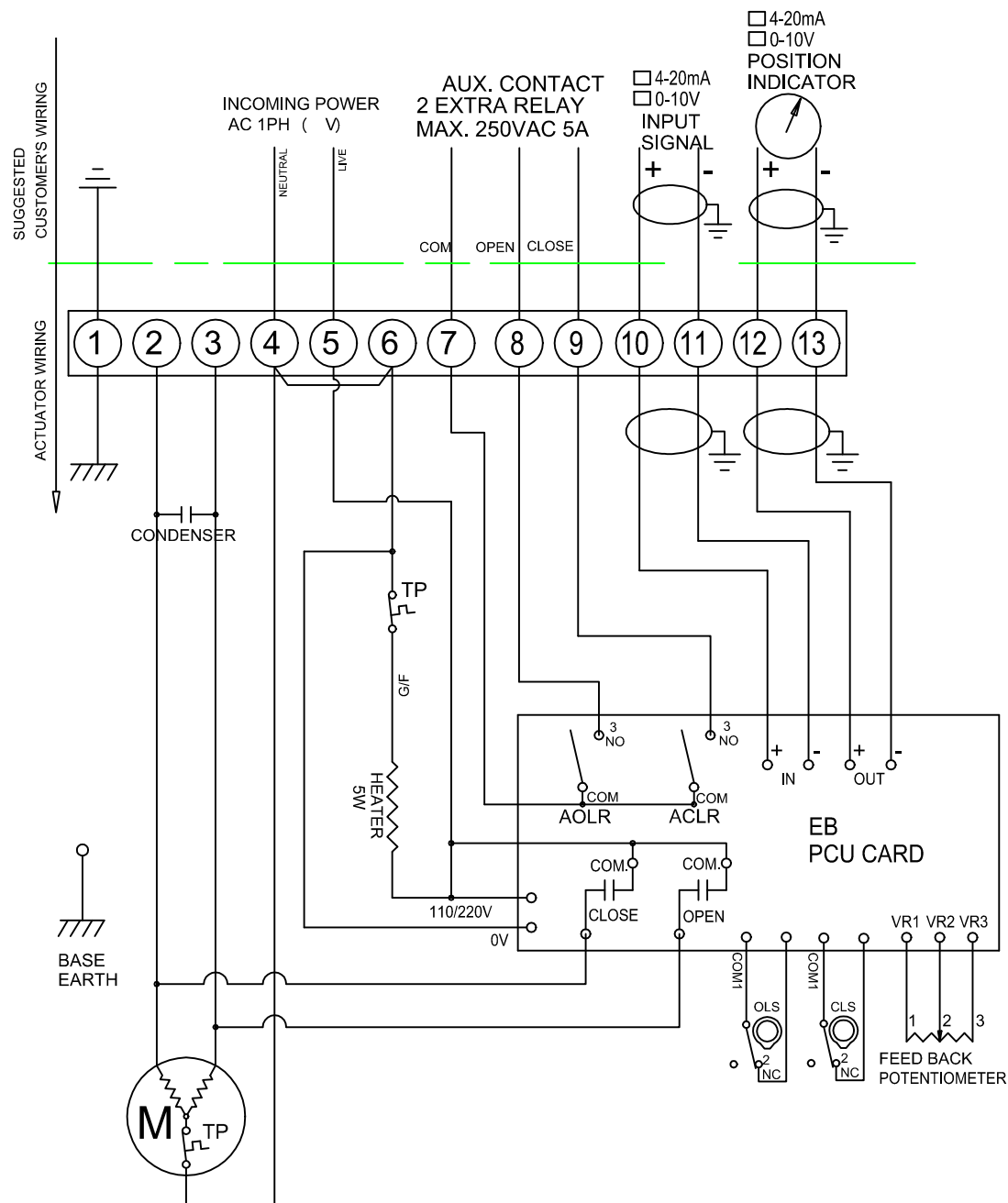
DWG. NO HQ-1200-A

DATE 20/12/2003 ISSUE REF: A

HQ-008
APPLICATION

Albion Valves (UK) Ltd
01226 729900

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.

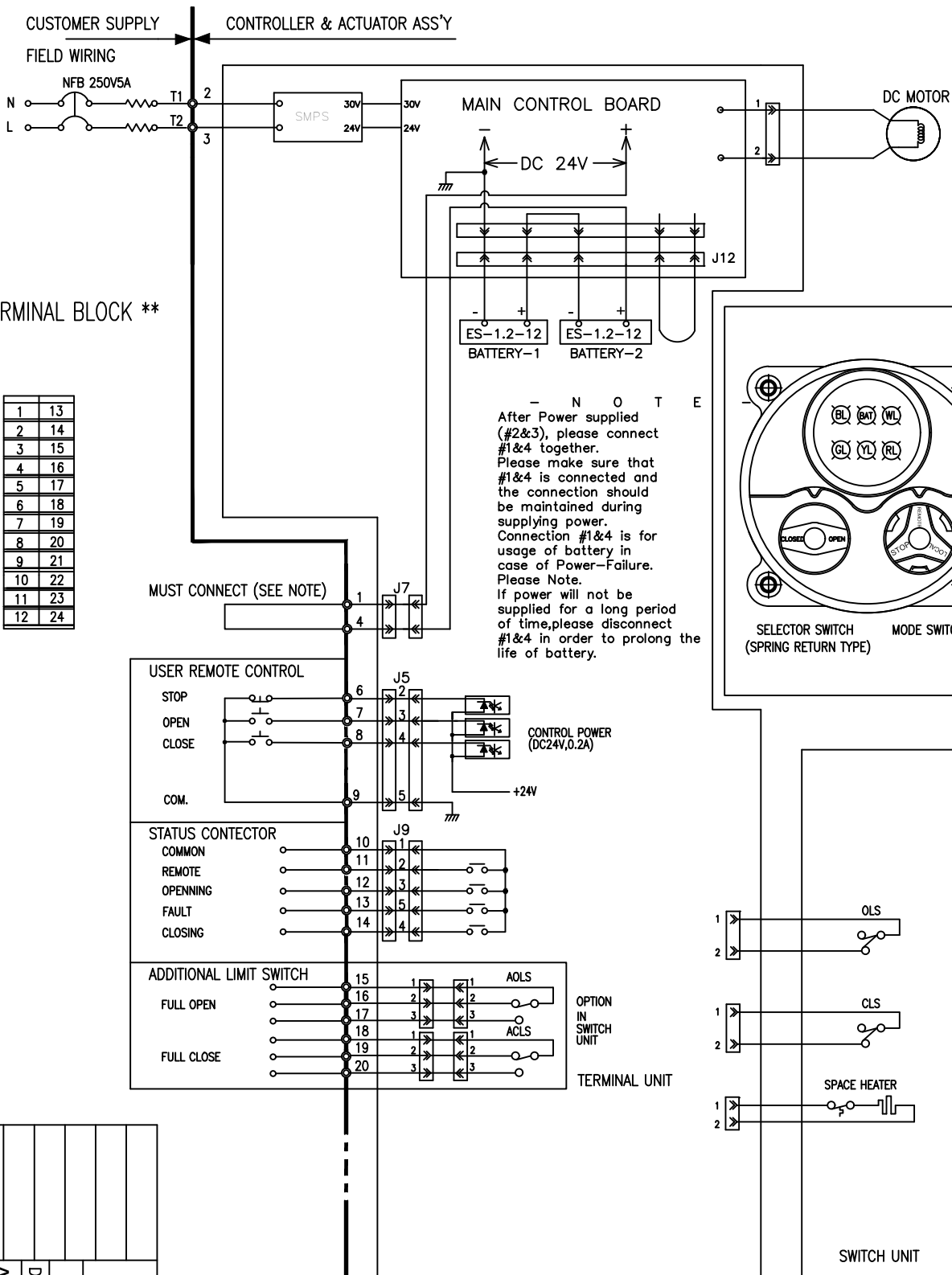
	PART NAME		1PH WIRING DIAGRAM STANDARD+PCU
	DWG. NO		HQ-1500-E
	DATE	22/11/18	ISSUE REF: E
HQ-008	Albion Valves (UK) Ltd 01226 729900		
APPLICATION			

DOC : WD-01 1-09-2008

**** 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 ****
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

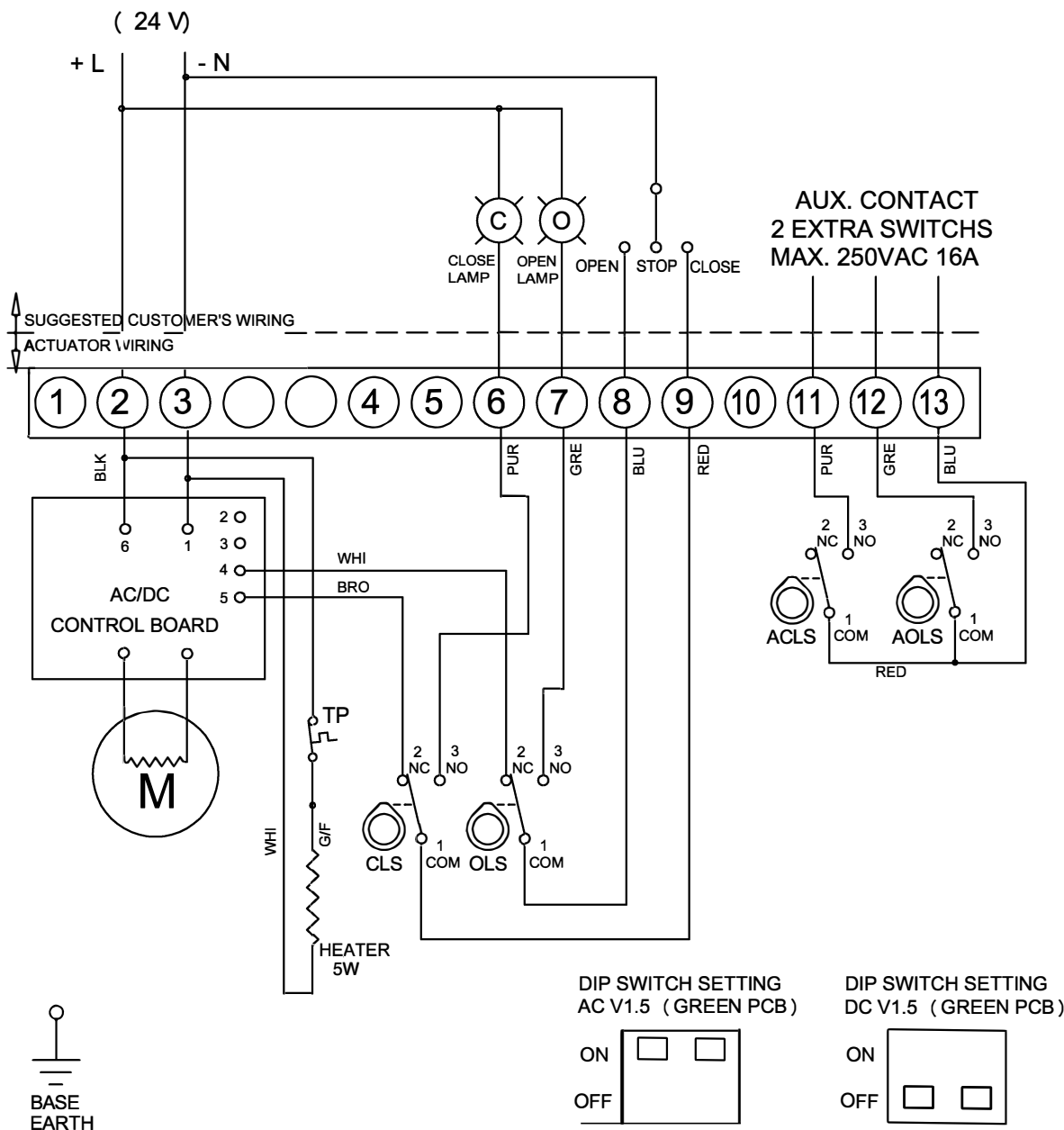
WL : WHITE LAMP FOR POWER
BL : BLUE LAMP FOR REMOTE

**** LIMIT SWITCH CONTACT POSITIONS ****

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

— : CONTACT ON --- : CONTACT OFF

APPLICATION	HQ-008	DATE 16.10.2014	ISSUE E	DWG. NO HQ - 9600-E	1 PHASE WIRING DIAGRAM + RBP + ALS
Albion Valves (UK) Ltd 01226 729900					
DOC : WD-01 1-09-2008					



TORQUE AND LIMIT SWITCH OPERATION

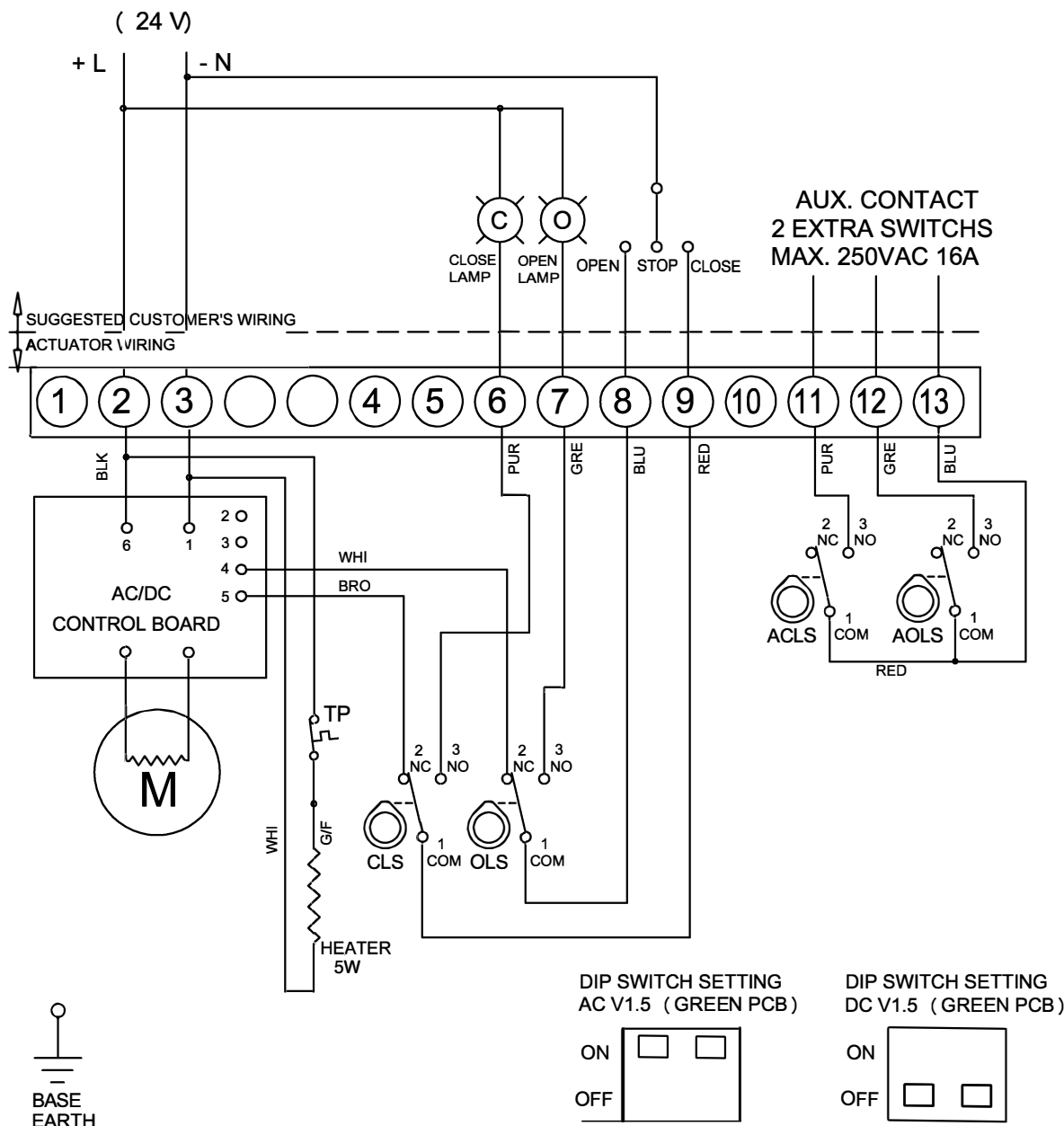
SWITCH	CLOSE ←	INTERMEDIATE	→ OPEN
CLS 1-2			
CLS 1-3			
OLS 1-2			
OLS 1-3			
ACLS1-2			
ACLS1-3			
AOLS1-2			
AOLS1-3			

SYMBOL	DESCRIPTION	RATING
CLS	CLOSE LIMIT SWITCH	250VAC 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	Albion Valves (UK) Ltd 01226 729900	
APPLICATION		
DOC : WD-01 1-09-2008		

	PART NAME		WIRING DIAGRAM AC + PCU	
	DWG. NO		HQ-8500-AC-A	
	DATE		21.8.2020	ISSUE REF: A
HQ-008	Albion Valves (UK) Ltd 01226 729900			
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			

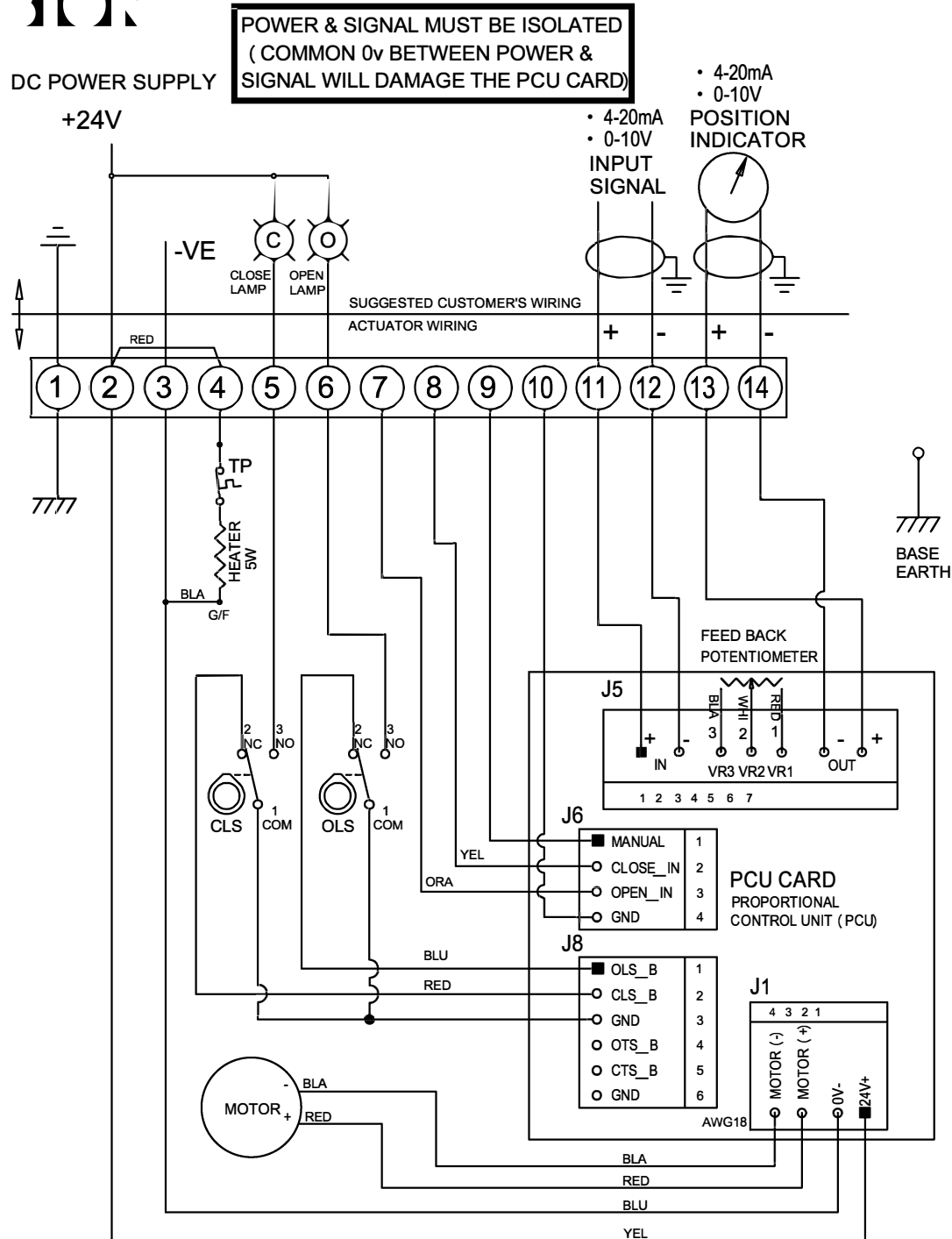
SYMBOL	DESCRIPTION	RATING
CLS	CLOSE LIMIT SWITCH	250VAC 10A
OLS	OPEN LIMIT SWITCH	250VAC 10A
ACLS	AUX. CLOSE LIMIT SWITCH	250VAC 16A
AOLS	AUX. OPEN LIMIT SWITCH	250VAC 16A
TP	THERMAL PROTECTOR	250VAC 15A

*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	Albion Valves (UK) Ltd 01226 729900	
APPLICATION		
DOC : WD-01 1-09-2008		



HQ8 24V DC & Proportional Control Unit



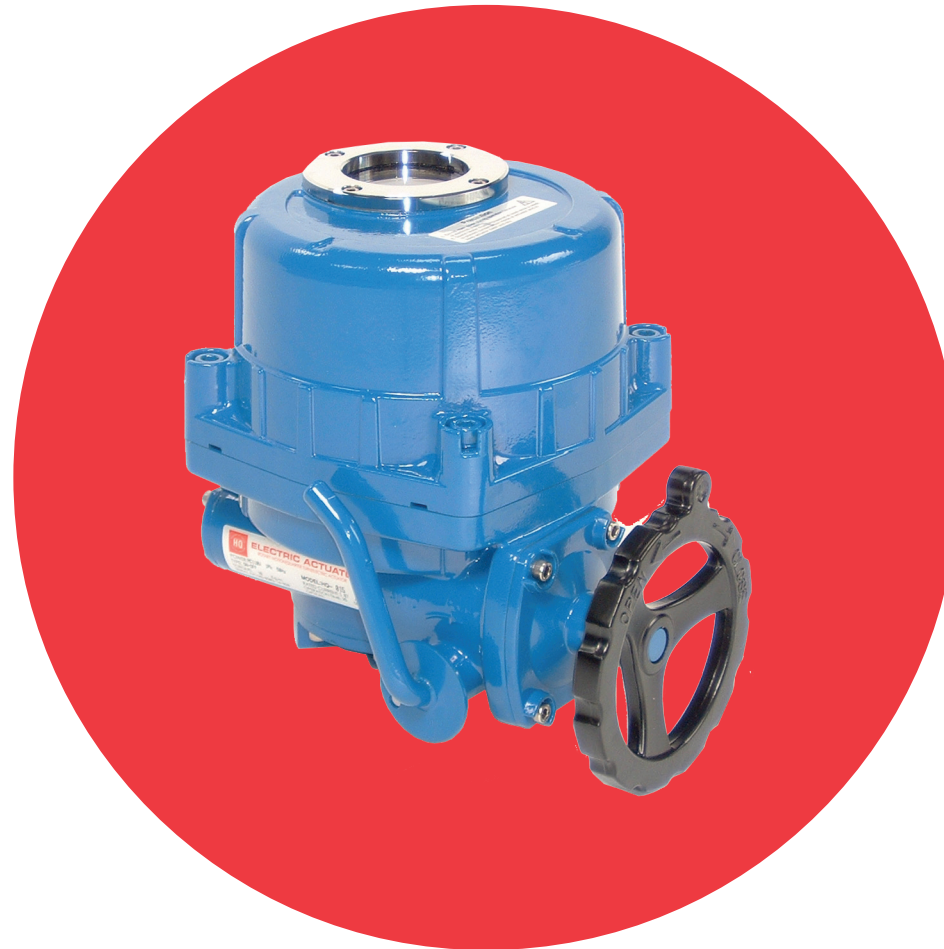
TORQUE AND LIMIT SWITCH OPERATION

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
■	FIRST PIN		

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

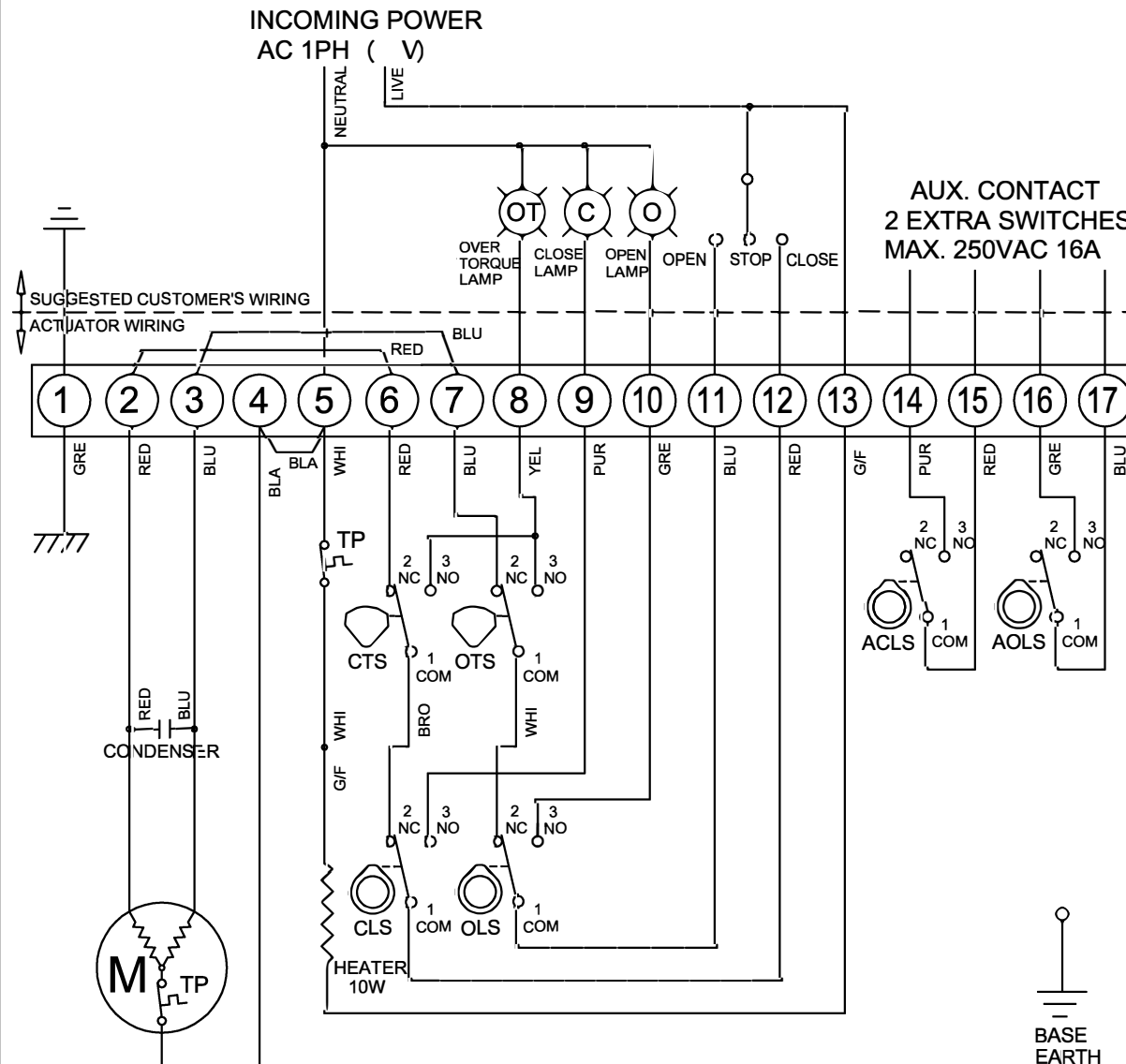
	PART NAME		WIRING DIAGRAM	
			DC + PCU	
	DWG. NO		HQ-8500-DC-A	
	DATE	21.8.2020	ISSUE REF:	A
	Albion Valves (UK) Ltd 01226 729900			
HQ-008				
APPLICATION				
DOC : WD-01 1-09-2008				

Wiring Diagrams



HQ15 - HQ120 HQ Series 1/4 Turn Electric Actuator

Albion Valves (UK) Ltd
www.albionvalvesuk.com
Email: sales@albionvalvesuk.com
Tel: 01226 729900



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.

1 PHASE WIRING DIAGRAM STANDARD

HQ-120

HQ-080

HQ-060

HQ-050

HQ-030

HQ-020

HQ-015

APPLICATION

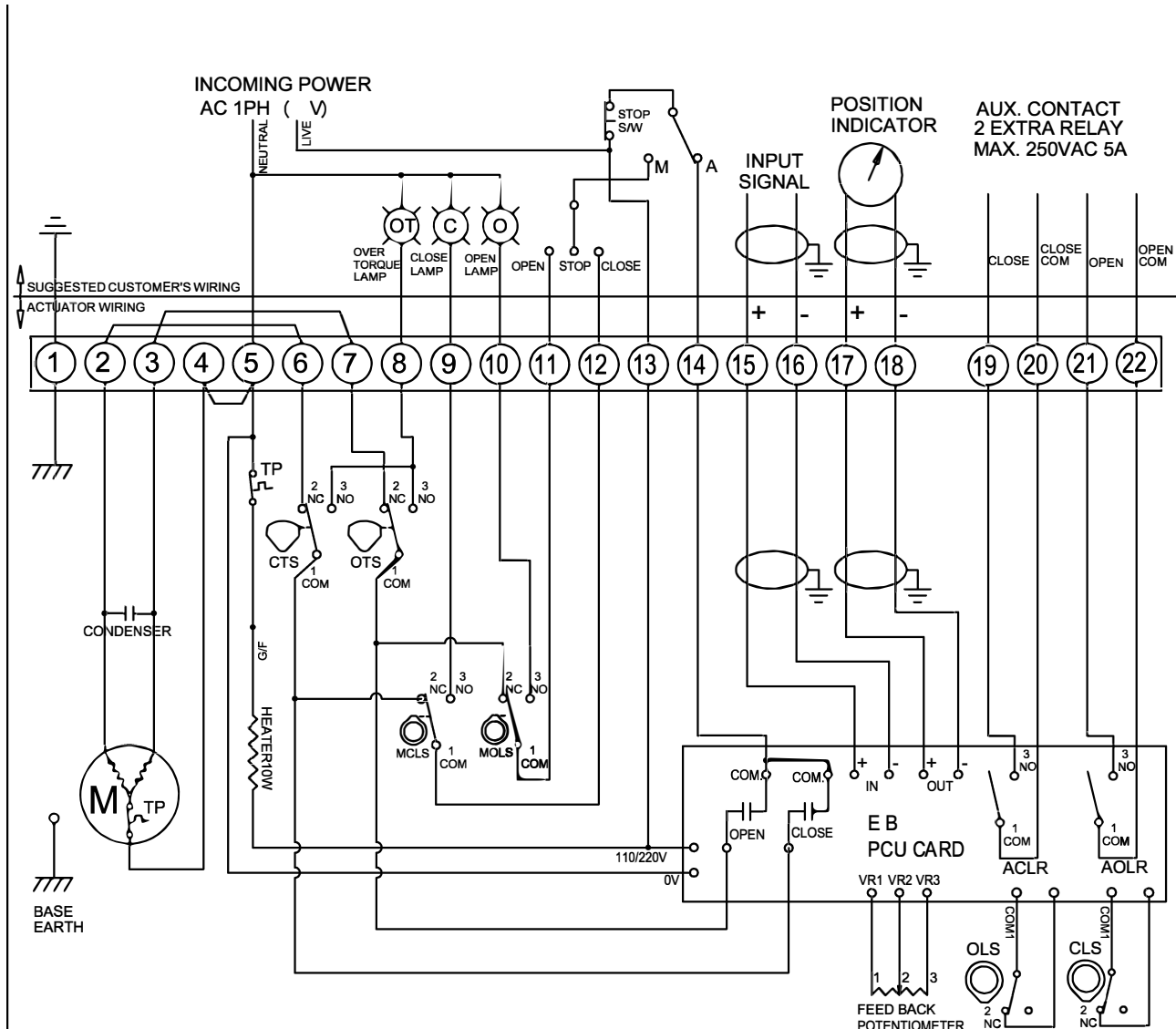
DWG. NO **HQ-11000-A**

DATE 10/5/2001 ISSUE REF: A

Albion Valves (UK) Ltd
01226 729900

DOC : WD-01 1-09-2008

HQ15 - HQ120 110V 230V & Proportional Control Unit



TORQUE AND LIMIT SWITCH OPERATION

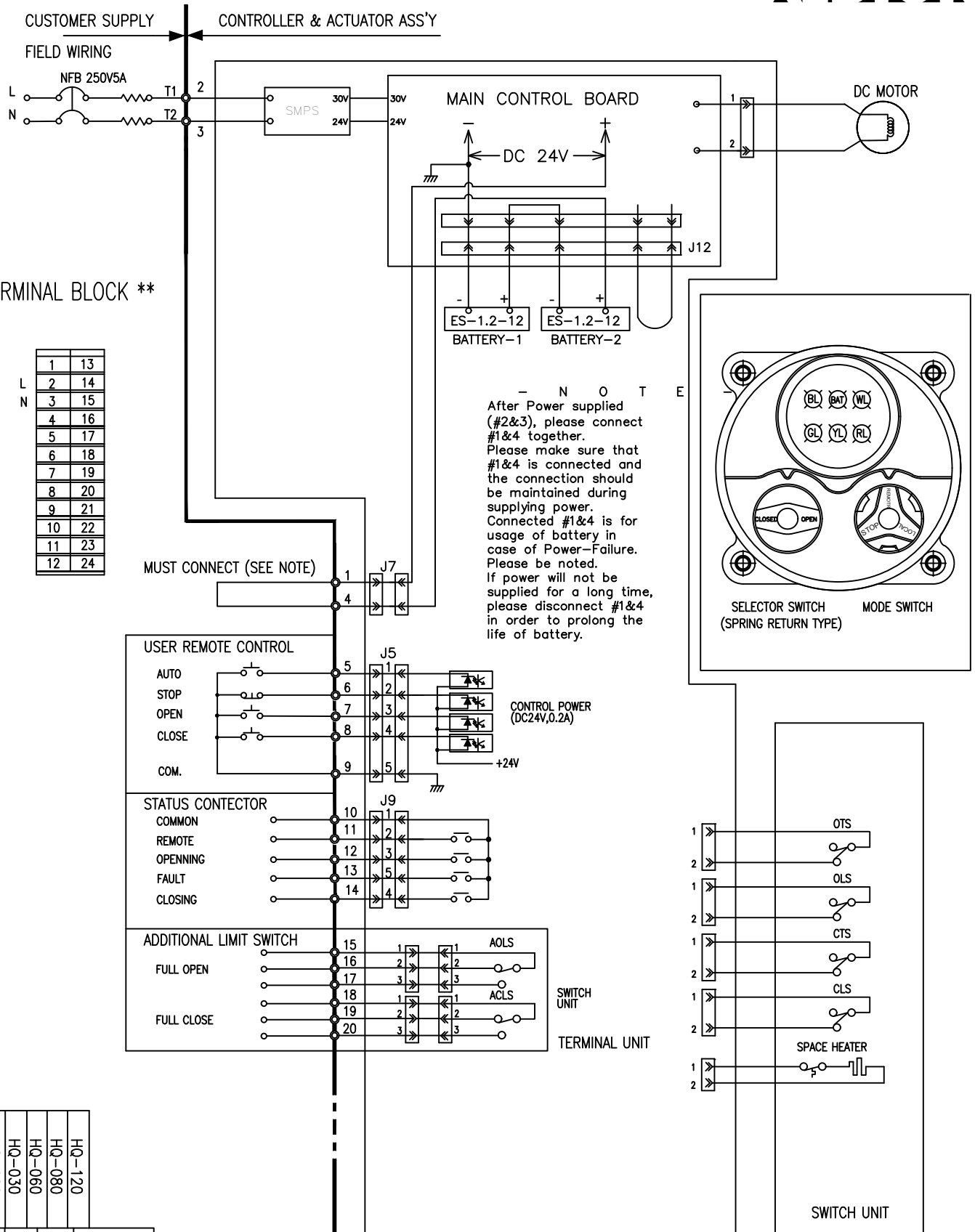
SWITCH	CLOSE ←	INTERMEDIATE	→ OPEN
CLS 1-2			
OLS 1-2			
MCLS1-2			
MCLS1-3			
MOLS1-2			
MOLS1-3			
ACLR1-3			
AOLR1-3			
CTS 1-3	* CLOSING TORQUE SWITCH INTERRUPTS CONTROL IF MECHANICAL OVERLOAD OCCURS DURING CLOSING CYCLE		
OTS 1-3	* OPENING TORQUE SWITCH INTERRUPTS CONTROL IF MECHANICAL OVERLOAD 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.

1PH WIRING DIAGRAM PCU		
HQ-120	DWG. NO HQ-15000-E	
HQ-080		
HQ-060		
HQ-050		
HQ-030		
HQ-020	DATE 12/11/18	ISSUE REF: E
HQ-015	Albion Valves (UK) Ltd 01226 729900	
APPLICATION		

DOC : WD-012 1-09-2008

HQ15 - HQ120 110V 230V & Rechargeable Battery Backup



** NOTE ** Technical Explanation

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
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 (%)	
		0	100
OPEN (OLS)	1-3		
	1-2		
CLOSE (CLS)	1-3		
	1-2		

— : CONTACT ON --- : CONTACT OFF

DOC : WD-01 1-09-2008

HQ-120	HQ-080	HQ-060	HQ-030	HQ-020	HQ-015
1 PHASE WIRING DIAGRAM	DWG. NO HQ - 96000-F	DATE 17.8.2020	ISSUE REF: F	Albion Valves (UK) Ltd	01226 729900

RBP

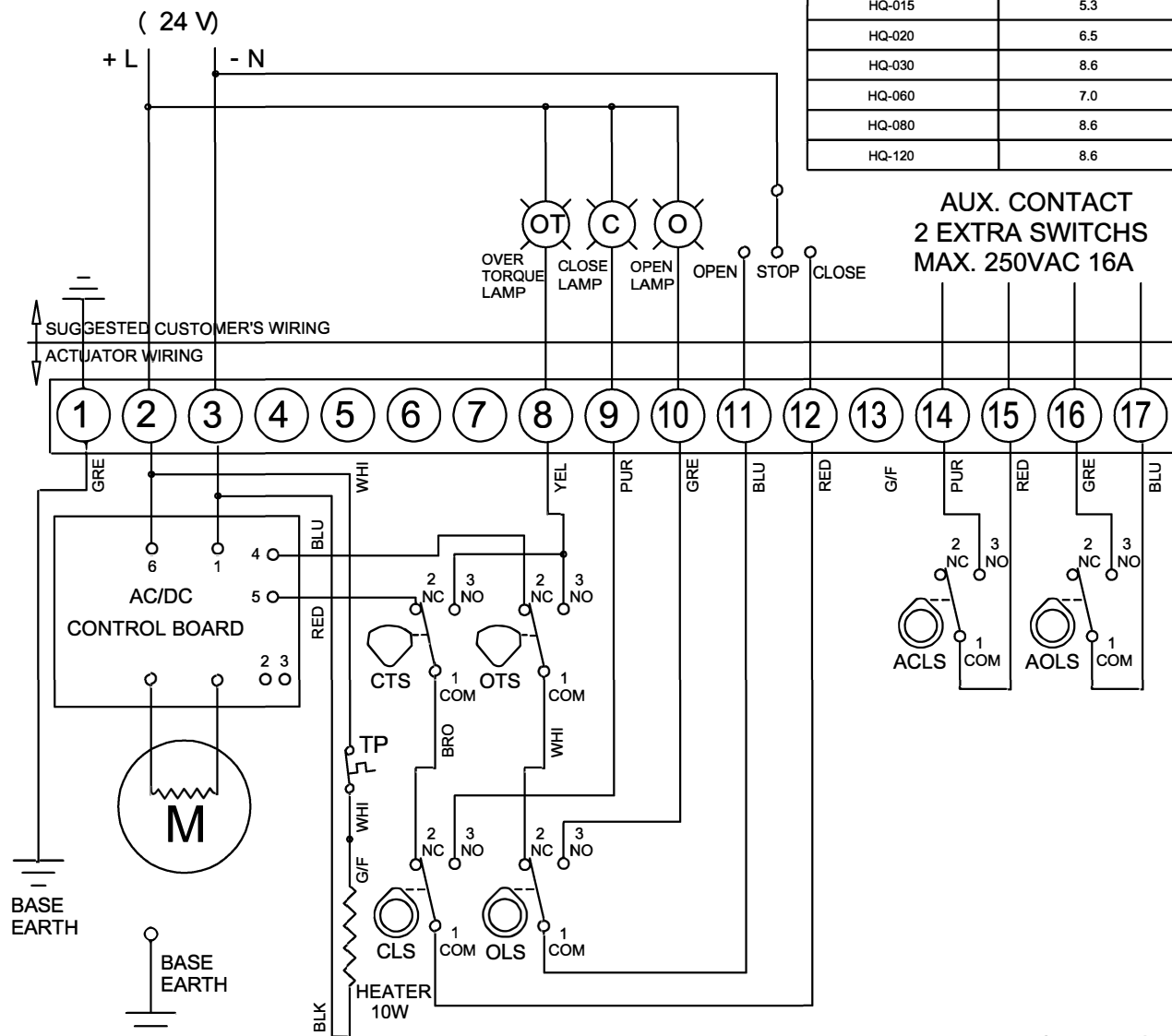


HQ15 - HQ120 24V AC

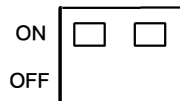
IMPORTANT NOTE: ENSURE THAT ADEQUATE POWER IS AVAILABLE. FAILURE TO DO SO WILL RESULT IN DAMAGE TO THE ELECTRONICS.

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

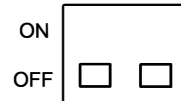
AUX. CONTACT
2 EXTRA SWITCHES
MAX. 250VAC 16A



DIP SWITCH SETTING
AC V1.5 (GREEN PCB)



DIP SWITCH SETTING
DC V1.5 (GREEN PCB)



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.

HQ-120	PART NAME	AC/DC WIRING DIAGRAM STANDARD	
HQ-080		DWG. NO	
HQ-060		HQ-84000-V1.5	
HQ-030	DATE	21.5.2024	ISSUE REF: A
HQ-020	Albion Valves (UK) Ltd 01226 729900		
HQ-015			
APPLICATION			

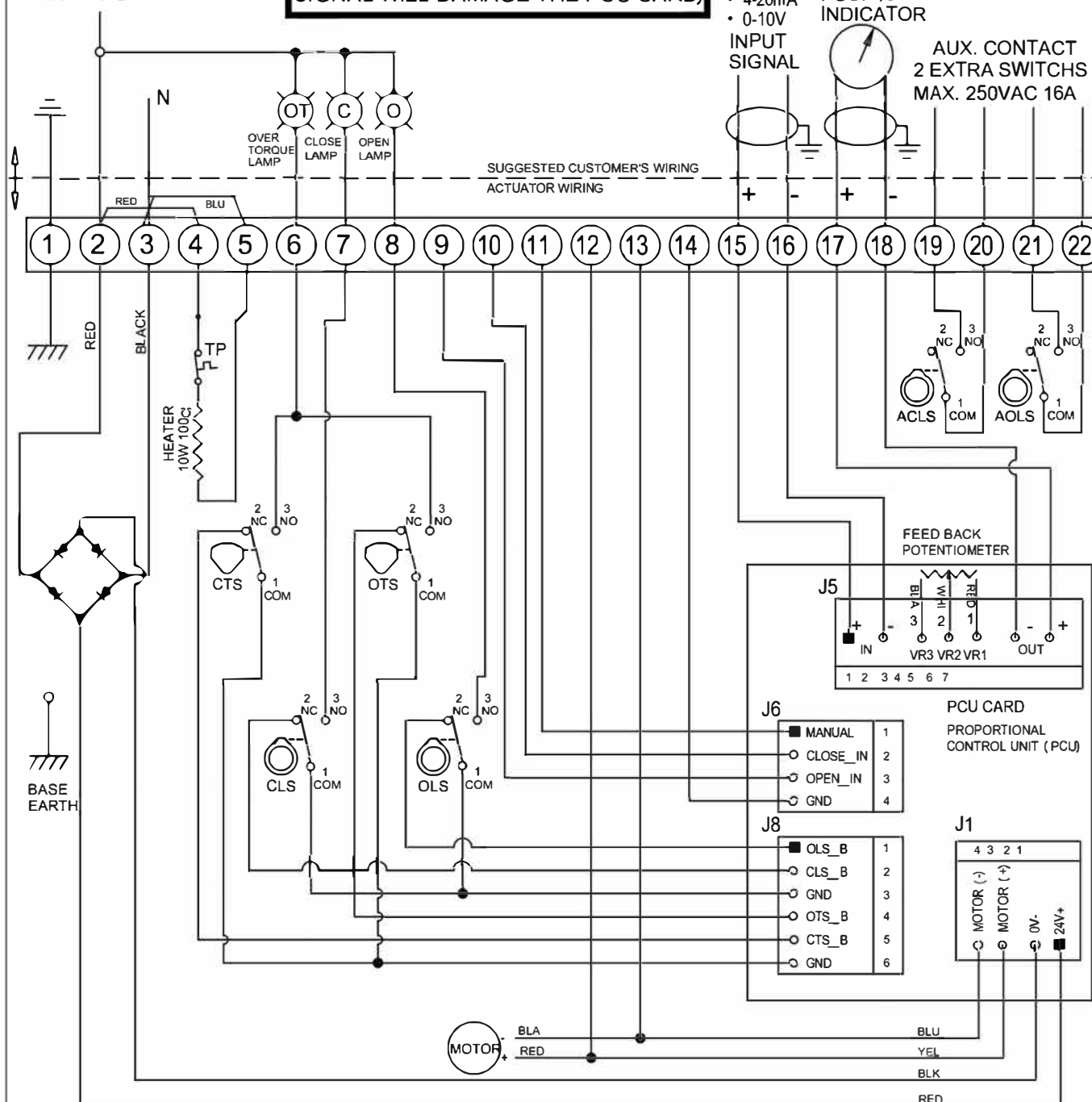
DOC : WD-01 1-09-2008

HQ15 - HQ120 24V AC & Proportional Control Unit



**POWER & SIGNAL MUST BE ISOLATED
(COMMON 0v BETWEEN POWER &
SIGNAL WILL DAMAGE THE PCU CARD)**

AC POWER SUPPLY
24V AC LIVE



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

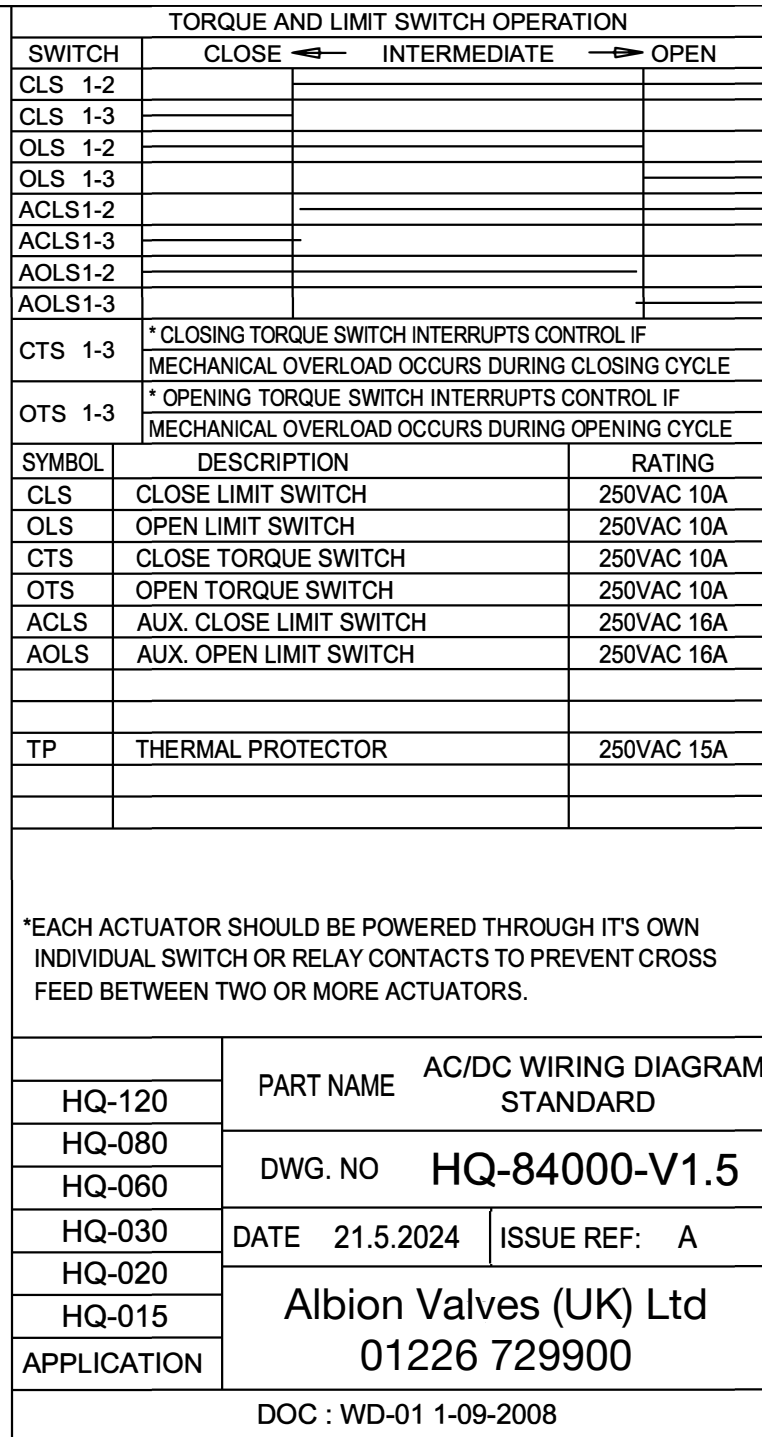
CTS 1-3	* CLOSING TORQUE SWITCH INTERRUPTS CONTROL IF MECHANICAL OVERLOAD OCCURS DURING CLOSING CYCLE	
OTS 1-3	* OPENING TORQUE SWITCH INTERRUPTS CONTROL IF MECHANICAL OVERLOAD OCCURS DURING OPENING CYCLE	
SYMBOL	DESCRIPTION	RATING
CLS	CLOSE LIMIT SWITCH	250VAC 10A
OLS	OPEN LIMIT SWITCH	250VAC 10A
CTS	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
■	FIRST PIN	

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

WIRING DIAGRAM	
PART NAME	AC PCU
HQ-120	DWG. NO HQ-85000-AC-B
HQ-080	
HQ-060	
HQ-030	
HQ-020	DATE 31.01.2020 ISSUE REF: B
HQ-015	
APPLICATION	Albion Valves (UK) Ltd 01226 729900

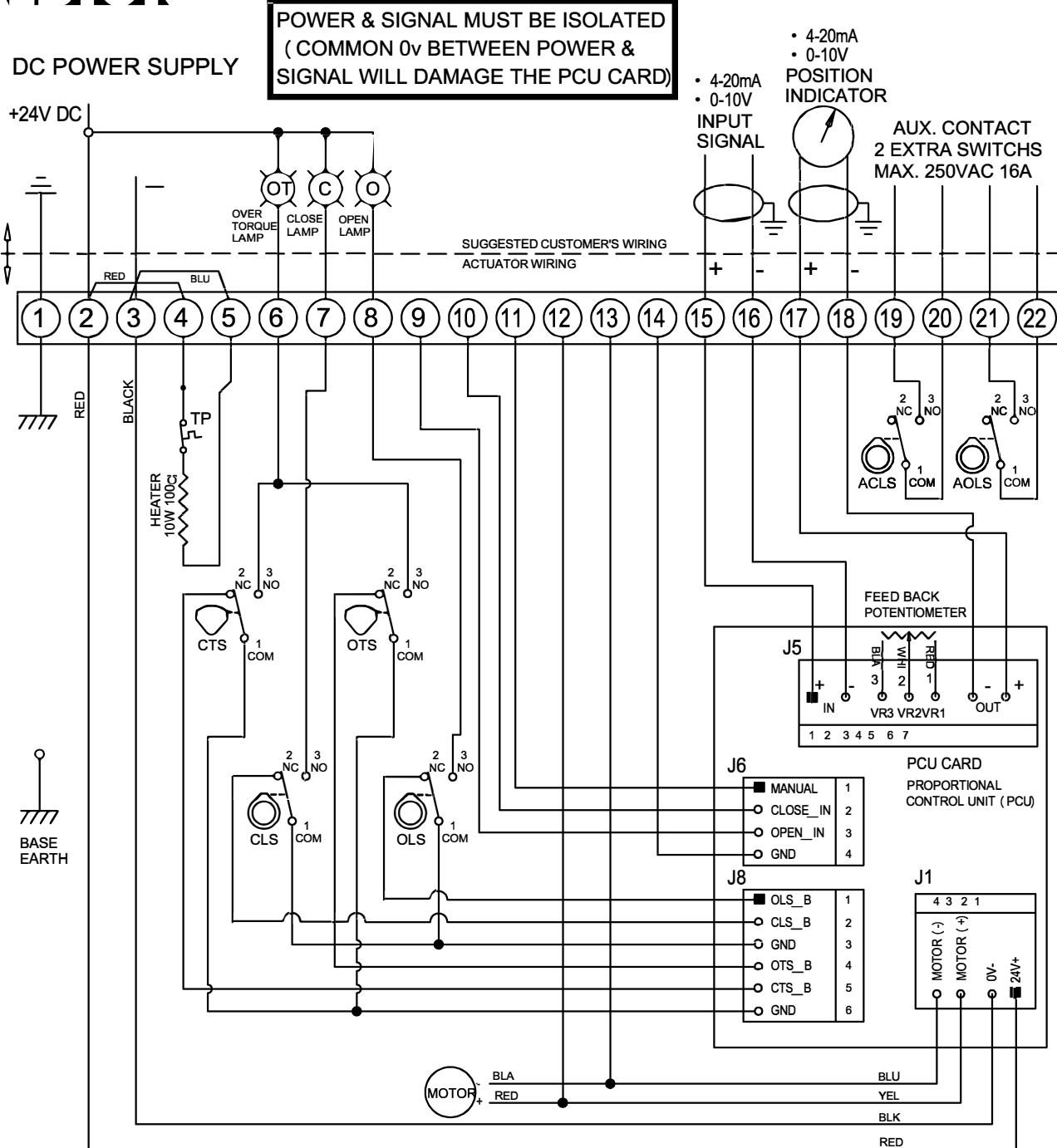
DOC : WD-01 1-09-2008

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





HQ15 - HQ120 24V DC & Proportional Control Unit



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

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
■	FIRST PIN	

*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	WIRING DIAGRAM
HQ-120		DC PCU
HQ-080	DWG. NO	HQ-85000-DC-B
HQ-060	DATE	21.8.2020
HQ-030	ISSUE REF:	B
HQ-020		
HQ-015		
APPLICATION		

DOC : WD-01 1-09-2008