415V AC SUPPLY
FROM PUMP No 1 CB 2
CONTINUED ON DRG
A1-58852 LINE 20 & 22

E2 (G/Y) N2 (Bk) R2/1 W2/1 B2/1

PUMP No 1
SS CONTROL
SUPPLY CB
6A

1/L1 3/L2 5/L3
3Ø SUPPLY OUT

DANFOSS SOFT STARTER MCD 500

CONTROL SUPPLY A4 B2C
A5
A6 N2
E

PROGRAMMABLE RELAY OUTPUT A MC1 13 14
PROGRAMMABLE RELAY OUTPUT B RUNNING 21 DC2/8; 22; 24 24VDC2 — CONTINUED ON LINE 25
PROGRAMMABLE RELAY OUTPUT C TRIPPED 33 DC2/11; 34 24VDC2 — CONTINUED ON LINE 31

ANALOG OUTPUT 07
COMMON 08 — MOTOR CURRENT FEEDBACK CONTINUED ON DRG A1-58861 LINE 20 & 21
PROGRAMMABLE INPUT EXTERNAL TRIP 11
START 15
+24V 16
STOP 17 SS1/17 P1SR
+24V 18 SS1/18 LINE 18
25 25 SS1/25 P1RRR
A1-58861 LINE 10

PRIMARY MOTOR SETTINGS

[1-3] START MODE	ADAPTIVE CONTROL
[1-4] CURRENT LIMIT	300% FLC
[1-6] START RAMP TIMES	
7.5kW	30 SEC
15kW	15 SEC
18.5kW	15 SEC
22kW	15 SEC

3Ø SUPPLY OUT 2/T1 4/T2 6/T3
MOTOR THERMISTORS 05 06
LCP CONNECTION CABLE — MCD 500 REMOTE PANEL
(MOUNTED ON CONTROL & DISTRIBUTION COMPT ESCUTCHEON DOOR)

PF1EJ01 TS1/E4 — E2
PF1EJ01 TS1/1 — R2/2
PF1EJ01 TS1/2 — W2/2
PF1EJ01 TS1/3 — B2/2
PF1EJ01 TS1/9 — SS1/05
PF1EJ01 TS1/10 — SS1/06

MOTOR THERMISTORS (IF FITTED)

M
(QB1PP01)
PUMP No 1
kW

1 2 3 4 5 6 7 8 9 10 11 12

24V DC SUPPLY FROM 24VDC2 CB
CONTINUED ON DRG A1-58854 LINE 4

24DCV5 (ORANGE) — REFER DRG A1-58862 LINE 4
S2-1 (WHITE)

24VDC2 (ORANGE) — PFAR A1-58855 LINE 2 — DC2/1 (WHITE) — TOL1 LINE 31 — DC2/2 (WHITE)
DC2/3 (WHITE) — P1SR — 0VDC2 (BLACK)
DC2/5 (WHITE) — DPOR A1-58855 LINE 11
DR A1-58855 LINE 15
DC2/4 (WHITE) — DC2/6 (WHITE) — SPOR A1-58855 LINE 13
ACE3600 RTU SLOT 3 DO 1 A1-58863 LINE 4 & 5
DC2/4 (WHITE) — PF1EC02 TS8/1 — S3-1 — S3-2 — PF1EC02 TS8/2
DC2/7 (WHITE) — P1AR — 0VDC2 (BLACK)
RUN OFF AUTO
PUMP No 1 RUN/OFF/AUTO SWITCH

24VDC2 (ORANGE) — SS1 24 — SS1 RELAY OUTPUT B LINE 11 — SS1 21 — DC2/8 (WHITE)
DC2/8 (WHITE) — MR1 — 0VDC2 (BLACK)

24VDC2 (ORANGE) — MR1 LINE 25 — DC2/9 (WHITE)
DC2/9 (WHITE) — G — 0VDC2 (BLACK)

24VDC2 (ORANGE) — P1AR LINE 23 — DC2/10 (WHITE)
DC2/10 (WHITE) — B — 0VDC2 (BLACK)

24VDC2 (ORANGE) — SS1 34 — SS1 RELAY OUTPUT C LINE 11 — SS1 33 — DC2/11 (WHITE)
DC2/11 (WHITE) — TOL1 — 0VDC2 (BLACK)

24VDC2 (ORANGE) — TOL1 LINE 31 — DC2/12 (WHITE)
DC2/12 (WHITE) — R — 0VDC2 (BLACK)

24VDC2 (ORANGE) — DR A1-58855 LINE 15 — DC2/13 (WHITE)
DC2/13 (WHITE) — W — 0VDC2 (BLACK)

13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36

18 PUMP No 1 START RELAY — NO 11 / NC
23 PUMP No 1 AVAILABLE RELAY — A1-58862 — NO 29 5 / NC
25 PUMP No 1 RUNNING RELAY — A1-58862 — NO 27 6 / NC
27 PUMP No 1 RUNNING INDICATION
29 PUMP No 1 AVAILABLE INDICATION
31 PUMP No 1 OVERLOAD RELAY — A1-58862 — NO 33 13 / NC 18
33 PUMP No 1 OVERLOAD INDICATION
35 PUMP No 1 DUTY INDICATION

REVISIONS

No.	DATE	DESCRIPTION	APP'D
3	14/9/15	REVISED PROGRAMMABLE RELAY OUTPUTS B & C LINE REFERENCES.	M.S.
2	19/8/15	REVISED SOFT STARTER RELAY OUTPUTS - APPROVED STANDARD DRG.	M.S.
1	18/6/15	ADDED MOTOR CURRENT FEEDBACK.	M.S.
0	27/3/15	INITIAL ISSUE.	M.S.

REFERENCES

PLAN No.	TITLE
A1-58850	STANDARD SPS - PUMP STATION 7.5kW TO 22kW (SOFT STARTER) - I & C - DRAWING INDEX

DESIGNED BY:

OPTIMUM DRAFTING PTY LTD
A.B.N. 28 065 272 942

DO NOT SCALE

CERTIFICATION OF COMPLIANCE WITH GIPPSLAND WATER'S DESIGN & DRAFTING REQUIREMENTS.
DESIGNED: 25/03/2015 - M SENANAYAKE
DRAWN: 27/03/2015 - OPT/MM
CHECKED: 01/04/2015 - M SENANAYAKE

GIPPSLAND WATER DRAWING STATUS: STANDARD DRAWING

GIPPSLAND WATER FACILITY CODE: XXCPXX

GIPPSLAND WATER

DRAWING No. A1-58856 REV. 3

STANDARD SEWERAGE PUMP STATION
PUMP STATION 7.5kW TO 22kW (SOFT STARTER)
PUMP No 1 (QB1PP01)
ELECTRICAL SCHEMATIC DIAGRAM