

PRODUCT DESCRIPTION ⇒

| RATIN | G (SELECT | ONLY ONE) | Г | | OPTION TABLE | 1 | |
|---------|--------------------------------|--|-------------------|-------------|------------------|----------|--------------|
| RATED | DRIVE NODEL NO. GPD506V- | 12D% OL APPLIC 100% CONTINUOUS OUTPUT CURRENT(A) | ATIONS NOMINAL | BASE NO. | ENCLOSURE TYPE | OP DE | TION SIG. |
| | A006 | 6 | 1.5 | D10 | NEMA 1 VENTED | 1 | ٧ |
| | A008 | 8 | 2 | D20 | BLOWERED | 1 | |
| | A011 | 11 | 3 | 030 | BLOWERED | _ | B |
| 2 | A017 | 17.5 | 5 | D40 | LOUVERED | | L |
| 208 | A027 | 27 | 7.5 | D50 | | · · | |
| ъ V | A036 | 36 | 10 | D60 | | | |
| • | A054 | 54 | 15 | 070 | | | |
| | A068 | 68 | 20 | D80 | | | |
| | A080 | 80 | 25 | D90 | | | |
| | A104 | 100 | 30 | DAO | | | |
| | A006 | 6 | 1-15 | A10 | | | |
| | ADOB | 8 | 2 | A20 | | | |
| | A011 | 11 | 3 | A30 | | | |
| 2 | A017 | 17.5 | 5 | A40 | | | |
| 230 | A027 | 27 | 7.5 | A50 | | | |
| v v | A027 | 27 | 10 | A60 | | | |
| • | A036 | 36 | 15 | A70 | | | |
| | A054 | 54 | 20 | A80 | | | |
| | A068 | 68 | 25 | A90 | | | |
| | A080 | BO | 30 | AAO | | | |
| | A1D4 | 104 | 40 | ABO | | | |
| | B001 | 1.8 | 0.75 | B10 | | | |
| | B003 | 3.4 | 1-2 | B20 | | | |
| | B004 | 4.8 | 3 | B30 | | | |
| | B008 | 8 | 5 | B40 | | | |
| | B011 | 11 | 7.5 | B50 | | | |
| 4 | BO14 | 14 | 10 | B60 | | | |
| 4 6 O V | B021 | 21 | 15 | B70 | | | |
| v | 8027 | 27 | 20 | 880 | | | |
| | B034 | 34 | 25 | B90 | | | |
| | B041 | 41 | 30 | BAO | | | |
| | B052 | 52 | 40 | BBO | | | |
| | B065 | 65 | 50 | BCO | | | |
| | 8080 | 80 | 60 | BDO | | | |
| _ | 8096 | 96 | 75 | BEO | | | |

SPECIAL PARAMETER SETTINGS TABLE 4 (SEE NOTE 8)

n068

50 % DC INJECTION BRAKING CURRENT LEVEL n070 5.0 S DC INJECTION BRAKING TIME AT START

| | OPTION DESIGNATOR | DESCRIPTION |
|---|--------------------------|---|
| | ¥1 | 2CN OPTION - CM043 METASYS N2 COMMUNICATIONS |
| | Y2 | 2CN OPTION - CM045 FLN COMMUNICATIONS |
| | Y3 | 2CN OPTION - CM047 ECHELON COMMUNICATIONS |
| | Y4 | 2CN OPTION - CM086 RS-232 TO RS-485 INTERFACE |
| | Y5 | 2CN OPTION - DS006 ANALOG MONITOR - V/I |
| | SEE | "RUNNING ON BYPASS" AND "RUNNING ON DRIVE" PILOT LIGHTS |
| | TABLE 3 FOR OPTION | RFI NOISE SUPPRESSION NETWORK |
| | | ENGRAVED DRIVE CABINET NAMEPLATE |
| | DESIG. | MANUAL SPEED POT |
| | х | DC BUS LINK REACTOR (BASE NO.'S A1-A9, B1-B9, D1-DB, ONLY) |
| L | Т | AUTO TRANSFER TO BYPASS UPON DRIVE FAULT |
| | s | SMOKE PURGE |
| | R | INPUT REACTOR |
| | Р | PRESSURE TRANSDUCER (3-15 PSI) |
| | F | INPUT FUSED DISCONNECT SWITCH (BASE NO.'S A1-A7, B1-B7, D1-D6 ONLY) |
| | ſ | INPUT FUSING (BASE NO.'S A8-AB, B8-BE, D7-DA ONLY) |
| | E | INPUT RFI FILTER |

OPTION COMBINATION TABLE 3

| OPTION | | OPTION DESIGNATION | | | | | | | | | | | | | |
|---|--|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2 | 3 | 4 | 5 | 6 | 7 | G | н | J | к | L | N | U | W |
| PILOT LIGHTS | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| RFI NOISE SUPPRESSION NETWORK ENGRAVED DRIVE CABINET NAMEPLATE MANUAL SPEED POT | | 0 | 0 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 |
| | | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| | | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 | 0 | 1 |

| PARAMETER | DATA | UNIT | DESCRIPTION/REMARKS | |
|-----------|----------------|------|---|-----|
| n001 | 3 | N/A | READ/WRITE TO ALL PARAMETERS | |
| n002 | SEE TABLE 5 | N/A | DRIVE OPERATION MODE SELECTION | |
| n003 | 460(230) | ٧ | STANDARD MAX VOLTAGE SETTING | |
| nuus | 208 | v | MAX VOLTAGE SETTING FOR BASE NO. "D_" | |
| n006 | 1 | N/A | REVERSE RUN DISABLED | l r |
| n007 | 0 | N/A | LOCAL/REMOTE KEY DISABLED | |
| n018 | 60.0 | s | ACCELERATION TIME | 1 |
| n019 | 60.0 | s | DECELERATION TIME | |
| n024 | 10.0 | ΗZ | KEYPAD SPEED REFERENCE | |
| n033 | | AMPS | MOTOR FULL LOAD AMPS- (MUST BE SET BY CUSTOMER) | |
| n038 | 5 | N/A | REMOTE/LOCAL (USED FOR NORMAL/TEST) | |
| n039 | 9 | N/A | TERMINAL S5 SELECTS AUTO/HAND SPEED REFERENCE SELECT | |
| n040 | 21 | N/A | PID CONTROL DISABLE | |
| n043 | 1 | N/A | TERMINALS FI AND FV ANALOG INPUT SELECTION | |
| n044 | 0 | N/A | FOR OPTION P 0-10VDC AUTO MODE INPUT, WITH CONTROL BOARD JUMPER J1 CUT | |
| | 1 | N/A | 4-20MADC AUTO MODE INPUT | |
| n055 | 1 | N/A | MOMENTARY POWER LOSS RIDE THROUGH ENABLED | |
| n056 | 20 | % | SPEED SEARCH OPERATION LEVEL | |
| n057 | 1.0 | S | MINIMUM BASE BLOCK TIME | |
| n058 | 25 | % | V/F DURING SPEED SEARCH | |
| n061 | 1 | N/A | DRIVE FAULT RELAY DE-ENERGIZED DURING AUTO RESTART ATTEMPTS | |

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| DRIVE OPERATION MODE SELECTION TABLE 5 | | | | | | | | | |
|--|------------------|------------------------|-------------|--|--|--|--|--|--|
| n002 SETTINGS | RUN/STOP COMMAND | FREQUENCY REFERENCE | SEE NOTE | | | | | | |
| 0 | KEYPAD | KEYPAD | 9 | | | | | | |
| 1 | EXT. TERMINALS | KEYPAD | | | | | | | |
| 2 | KEYPAD | EXT. TERMINALS | 9 | | | | | | |
| 3 FACTORY SETTING | EXT. TERMINALS | EXT. TERMINALS | | | | | | | |
| 4 | KEYPAD | SERIAL COMM. | 9 | | | | | | |
| 5 | EXT. TERMINALS | SERIAL COMM. | | | | | | | |
| 6 | SERIAL COMM. | SERIAL COMM. | 10 | | | | | | |
| 7 | SERIAL COMM. | KEYPAD | 10 | | | | | | |
| 8 | SERIAL COMM. | EXT. TERMINALS | 10 | | | | | | |

CONTACT SEQUENCE CHART FOR \$2 X - INDICATES CONTACT CLOSED CONTACT SEQUENCE CHART FOR S1 X - INDICATES CONTACT CLOSED POSITION MANUE. CONTACT BYPASS OFF DRIVE DRIVE ONTACT 1 х 180 1 X 1LO 2 2

· SCHEMATIC SHOWS THIS POSITION.

X 2L0

X 3L0

3

4

* COMPONENTS NOT SUPPLIED BY YASKAWA.

NOTES:

- CUSTOMER WIRING. FOR 0 TO 100 AMPS, USE 60°-75°C COPPER WIRE. ABOVE 100 AMPS, USE 75°C COPPER WIRE.
- O CUSTOMER CONNECTION POINT ON PANEL MOUNTED TERMINAL BLOCK TB1. TORQUE WIRE CONNECTIONS TO 10 LB. IN.
- FACTORY CONNECTION POINT ON DRIVE A1.
- REFER TO THE PRODUCT DESCRIPTION AND ASSOCIATED OPTION TABLES TO DETERMINE WHICH OPTIONS ARE PRESENT. DONINGETED TO PANEL. CUSTOMER TO CONNECT PANEL GROUND LUIG TO EARTH GROUND.
- MOTOR OVERLOAD RELAY, S12, IS FACTORY SET FOR MANUAL RESET, CUSTOMER TO ADJUST S12 TRIP SETTING FOR THE AC MOTOR'S FULL LOAD AMPS.
- CONTACTS LE FINGE FOR INSERTION OF NORMALY CLOSED CUSTOMER SAFETY CONTACTS LE. FIRESTAT, FREEZESTAT, WINDING OR BEARING TEMPERATURE ACTIVATED SWITCHES. IF APPLICABLE, REMOVE THE FACTORY INSTALLED JUNFER JI.
- SWICHES. IF APPLOADE, REMOVE THE FACIONAL DISTALLED JOINTER 31. A. TERMINALS SUPPLIED DRI INSERTION OF CUSTOMER SUPPLIED DAMER ELECTRIC PNEUMATIC YAVE (SOLENOID), WITH A MAXIMUM POWER RATING OF 30XA SEALED AND 97XA INRUSA, USED TO CONTROL THE OPENING AND CLOSING OF A SYSTEM DAMER. IF APPLCABLE, CHANGE DAVE PARAMETER n004 TO 1.
- D. TERNINALS SUPPLIED FOR INSERTION OF CUSTOMER SUPPLIED, NORMALLY OPEN DAMPER END SWITCH (OPEN-DAMPER CLOSED, CLOSED-DAMPER FULLY OPEN). IF APPLICABLE, REMOVE THE FACTORY INSTALLED JUMPER 12.
- IN APPENDIXEL, REMOVE THE FUNCTION INSTALLED OWNER 02. INSULATED WISTED SHIELDED WIRE IS REQUIRED, 2 CONJUCTOR #18GA (BELDON #8760, OR EQUIVALENT), SHIELD TO CONVECT TO PROPER TERMINAL AS SHOWN, CONNECT THE SHIELD ONLY AT THIS END. STUB AND ISOLATE THE OTHER END, DO NOT RUN THESE WIRES IN THE SAME CONDUIT AS THE AC POWER AND AC CONTROL WIRES.
- WIRLS IN THE SAME CONCUT AS THE AL FORMER AND AL CUNTOL WIRLS. 6. DRAE PARAMETER ADDIS 19 MONOED TO PREVENT THE DRAY FORM STARTING INTO A SPINNING MOTOR FOLLOWING A TRANSITION FROM THE BYPASS MODE TO THE DRAE MODE OF OPERATION. CUSTORE TO FELL ADULTS MOTO FOR THE DECELERATION TO STOP TIME (IN SECONDS) OF THE AC MOTOR FROM MOXIMUM SPEED, WHEN SWITCHING FROM THE BYPASS TO THE DRIVE MODE OF OPERATION.
- WHEN PRESSURE TRANSDUCER (OPTION P) IS PRESENT (SEE OPTION TABLE 2), CONNECT THE PREJMARC SIGNAL AS SHOWN ON PAGE 1, SET PARAMETER n044 TO "0", AND CUT JUMPER JI ON THE DRIVE CONTROL BOARD.
- IF A "2 WIRE" OR "3 WIRE" INITIALIZATION IS PERFORMED ON THE DRIVE, THEN THE DRIVE PARAMETERS NEED TO BE RE-ENTERED, AS SHOWN IN THE SPECIAL PARAMETER SETTINGS TABLES 4 AND 5.
- IF RUN/STOP IS TO BE PERFORMED VIA THE DRIVE KEYPAD. THEN THE CUSTOMER SAFETY INTERLOCK, THE DAMPER CONTROL AND THE DAMPER END SWITCH WILL NO LONGER FUNCTION. CONTACT THE FACTORY. IF HESE PLACENOUS ARE REQUIRED.
- CONTACT THE FACTORY, IF THESE TUNCTIONS ARE REQUIRED. 10. <u>SERIAL COMMUNICATIONS RUN/STOP CONTROL</u>: THE CUSTOMER MUST ADD A JUNERE 19 BETWEEN POINTS 3 AND 4 ON THE PANEL MOUNTED TEXIMUM EDOX TEI, AND THE HAND/STOF JUND SWITCH, S2 MUST BE IN THE "AUTO" POSITION, IF SERIAL COMMUNICATIONS IS TO BE USED TO CONTROL THE RUN/STOP OF THE DRIVE.
- I Source Commentations is not call to control the long size of the bart. I HAND/STORMANDERING IS OPERATION. THE FUNCTION OF THE HAND/STOP/AUTO SWICH IS TO SELECT SPEED AND RUN/STOP CONTROL. THE AUTO POSITION SELECTS THE AUTO SOURCE MUNUT FOR SPEED AND A CLISTER SUPPLIED CONTROL FOR A RUN COMMAND. THE HAND POSITION SELECTS THE CAMBIET DOOR MONTROL SPEED FOR IT FOR SPEED AND A RUN COMMAND ACTIVATED BY THE GENES/CONTROL SWICH.
- SPEED FULKING SPEED RAU A NUM COMMAND ALIMATED BIT INE BIPASS/GPT/MENE SMILL I TEST/MORTH AL SWITCH OPPENTION: TEST/MORTH ALIMATED FOR THE STATEMENT OF THE TOT FOR THE ORDER THE OFF THE FUNCTION OF INT TEST/MORTHAGE SWITCH IS IN THE TOST FOR WHAL OFFENTION OF THE FUNCTION OF THE THE OFFENTIAL SWITCH IS IN THE TOST FOR THE WELL OFFENTION THE OFFENTIAL SWITCH OFFENTIAL SWITCH ON AN TEST. THE FULLT HAVE BEEST BY PREST SWITCHING TO LETHER TOPPASS' OR "OFF", AND THEN PRESSING RESET ON THE DRIVE KETMAD.
- FOR GPD506 BYPASSES WITH A CONTROL TRANSFORMER, T1, POWER RATING OF 350VA OR GREATER, A SECONDARY FUSE, F6, IS ADDED.

| Ć | ATES C | ONTACT | CLOSE | D | | | | CONTACT | | | |
|---|--------|---------|-------|--------|---------------------------------|---------|--------|---------|--------|--|--|
| | F | POSITIO | ¥. | MANUE. | | CONTACT | PC | SITION | MANUE. | | |
| | HAND | STOP | AUTO | TYPE | CONTACT | TEST | NORMAL | /TYPE | | | |
| | х | | | 1R0 | | 1 | | × | 1R0 | | |
| | | | х | 1L0 | | 2 | X | | 1LC | | |
| | х | | | 2RO | | 3 | х | | 2RC | | |
| | | | х | 2L0 | | 4 | х | | 2LC | | |
| | x | | | 380 | · SCHEMATIC SHOWS THIS POSITION | | | | | | |

CONTACTS 4 AN WITH OPTION P. · SCHEMATIC SHOWS THIS POSITION.

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5 X

CONTACT SEQUENCE CHART FOR S3 Y ~ INDICATES CONTACT CLOSED

| | | х | 2L0 | | 4 | | | | | |
|-------------------|--|---|-----|--|------|--|--|--|--|--|
| | | _ | 3RO | | SCHE | | | | | |
| ID 5 PRESENT ONLY | | | | | | | | | | |
| | | | | | | | | | | |