YASKAWA
A World of Automation Solutions™

Job Name:
Contractor:

Document: C23-HO-F
Sheet 2 of 2

PRODUCT DESCRIPTION ⇨ _ _ 0 _ _ _ _ _ _ _ _ _ _

RATING (SELECT ONLY ONE)

RATED INPUT	DRIVE MODEL NO. GPD506V-	120% OL APPLICATIONS 100% CONTINUOUS OUTPUT CURRENT(A)	NOMINAL HP	BASE NO.
208V	A312	312	100	DF0
230V	A312	312	125	AG0
460V	B240	240	200	BJ0
	B302	302	250	BK0
	B380	380	300	BL0
	B506	414	350	BM0
	B506	506	400	BN0
	B675	515	450	BP0
	B675	675	500	BR0

OPTION TABLE 1

ENCLOSURE TYPE	OPTION DESIG.
NEMA 1 VENTED	V
BLOWERED	B
LOUVERED	L

OPTION TABLE 2

OPTION DESIGNATOR	DESCRIPTION
Y1	2CN OPTION – CM043 METASYS N2 COMMUNICATIONS
Y2	2CN OPTION – CM045 FLN COMMUNICATIONS
Y3	2CN OPTION – CM047 ECHELON LONWORKS COMMUNICATIONS
Y4	2CN OPTION – CM088 RS-232 TO RS-485 INTERFACE
Y5	2CN OPTION – DS006 ANALOG MONITOR – V/I
SEE TABLE 3 FOR OPTION DESIG.	RFI NOISE SUPPRESSION NETWORK
	ENGRAVED DRIVE CABINET NAMEPLATE
	SPEED POT
R	INPUT REACTOR
P	PRESSURE TRANSDUCER (3–15 PSI)
M	MANUAL(HAND)/OFF/AUTO SWITCH
F	INPUT FUSING
C	INPUT CIRCUIT BREAKER

NOTES:

✳ COMPONENTS NOT SUPPLIED BY YASKAWA.

— CUSTOMER WIRING. – FOR 0 TO 100 AMPS, USE 60°–75°C COPPER WIRE. ABOVE 100 AMPS, USE 75 °C COPPER WIRE.

○ CUSTOMER CONNECTION POINT ON PANEL MOUNTED TERMINAL BLOCK TB1. TORQUE WIRE CONNECTIONS TO 16–20 LB. IN.

□ FACTORY CONNECTION POINT ON DRIVE A1.
REFER TO THE PRODUCT DESCRIPTION AND ASSOCIATED OPTION TABLES TO DETERMINE WHICH OPTIONS ARE PRESENT.

1. CONNECTED TO CABINET. CUSTOMER TO CONNECT CABINET GROUND LUG TO EARTH GROUND.
2. TERMINALS PROVIDED FOR INSERTION OF NORMALLY OPEN AUTO MODE RUN/STOP CONTACT.
3. INSULATED TWISTED SHIELDED WIRE IS REQUIRED. 2 CONDUCTOR #18GA. (BELDON #8760, OR EQUIVALENT). SHIELD TO CONNECT 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.
4. THE DIGITAL OPERATOR KEYPAD IS STANDARD ON THE DRIVE A1, AND CAN BE SET TO CONTROL THE RUN/STOP/SPEED OF THE A.C. MOTOR. SEE THE TECHNICAL MANUAL IF REMOTE OPERATORS ARE TO BE USED TO CONTROL THE A.C. MOTOR.
5. WHEN PRESSURE TRANSDUCER (OPTION P) IS PRESENT (SEE OPTION TABLE 2), CONNECT THE PNEUMATIC SIGNAL AS SHOWN ON PAGE 1.
6. MANUAL(HAND)/OFF/AUTO SWITCH OPERATION:
THE FUNCTION OF THE MANUAL/OFF/AUTO SWITCH IS TO SELECT SPEED AND RUN/STOP CONTROL. THE AUTO POSITION SELECTS THE AUTO SIGNAL INPUT FOR SPEED AND A CUSTOMER SUPPLIED CONTACT FOR A RUN COMMAND. THE MANUAL POSITION SELECTS THE CABINET DOOR MOUNTED SPEED POT R1 FOR SPEED AND SUPPLIES A RUN COMMAND.
7. BRANCH CIRCUIT PROTECTION (CIRCUIT BREAKER OR AC INPUT FUSES) MUST BE SUPPLIED BY THE CUSTOMER.
8. 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, 5 AND 6.
9. SERIAL COMMUNICATIONS RUN/STOP CONTROL:
THE MANUAL/OFF/AUTO SWITCH S1 MUST BE IN THE "AUTO" POSITION, IF SERIAL COMMUNICATIONS IS TO BE USED TO CONTROL THE RUN/STOP OF THE DRIVE.

SPECIAL PARAMETER SETTINGS TABLE 4 (SEE NOTE 8)

PARAMETER	DATA	UNIT	DESCRIPTION/REMARKS
n001	3	N/A	READ/WRITE TO ALL PARAMETERS
n002	SEE TABLE 6	N/A	DRIVE OPERATION MODE SELECTION
n003	460(230)	V	STANDARD MAX VOLTAGE SETTING
	208	V	MAX VOLTAGE SETTING FOR BASE NO. "D_"
n033	---	AMPS	MOTOR FULL LOAD AMPS– (MUST BE SET BY CUSTOMER)
n039	SEE TABLE 5	N/A	TERMINAL S5 MULTI-FUNCTION INPUT SELECTION
n043	SEE TABLE 5	N/A	TERMINALS FI AND FV ANALOG INPUT SELECTION
n044	SEE TABLE 5	N/A	TERMINAL FI SIGNAL INPUT SELECTION

OPTION COMBINATION TABLE 3

OPTION	OPTION DESIGNATION						
	1	2	3	4	5	6	7
RFI NOISE SUPPRESSION NETWORK	0	0	0	1	1	1	1
ENGRAVED DRIVE CABINET NAMEPLATE	0	1	1	0	0	1	1
SPEED POT	1	0	1	0	1	0	1

1 = OPTION IS PRESENT

DRIVE PARAMETER FACTORY SETTINGS TABLE 5

PARAMETER	OPTION PRESENT		
	NOT M & NOT P	M	M AND P
n039	10	9	9
n043	0	1	1
n044	1	1	0
AUTO MODE SPEED REF.	N/A	4–20MADC	3–15PSI
CUT CONTROL BOARD JUMPER J1	NO	NO	YES

DRIVE OPERATION MODE SELECTION TABLE 6

n002 SETTINGS	RUN/STOP COMMAND	FREQUENCY REFERENCE	SEE NOTE
0	KEYPAD	KEYPAD	
1	EXT. TERMINALS	KEYPAD	
2	KEYPAD	EXT. TERMINALS	
3 FACTORY SETTING	EXT. TERMINALS	EXT. TERMINALS	
4	KEYPAD	SERIAL COMM.	
5	EXT. TERMINALS	SERIAL COMM.	
6	SERIAL COMM.	SERIAL COMM.	9
7	SERIAL COMM.	KEYPAD	9
8	SERIAL COMM.	EXT. TERMINALS	9