

AC10

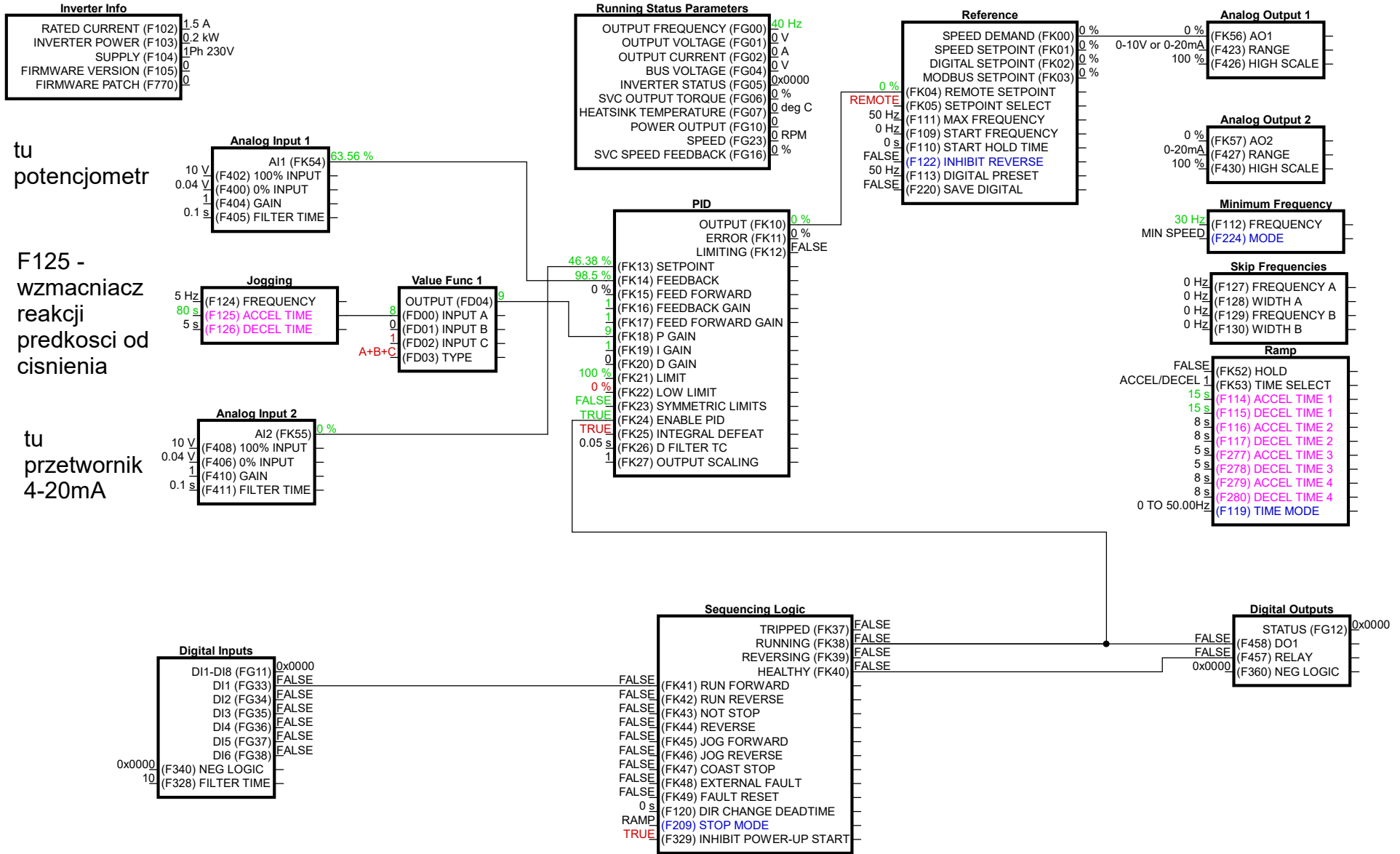
Version 2.32 Template

IP20 frame 1~2 (0.2kW~2.2kW)

IP20 3Ph 400V frame 3~5 (3.7kW~22kW)

Not for IP20 3Ph 230V frame 3~5, use IP20 frame 6~12 template

Inputs in 'Frame Dependent Colour' are frame dependent, see manual for details.
 Inputs in 'Restricted Access Colour' can only be changed when drive is not running.



PID

DWN			SIZE A	DWG. NO.	RFA
CHK		/2/anty-pid-1.024	ISSUE		
APP			SCALE	SHEET	1 OF 6
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Motor Control

Control Mode

V/F
DISABLED

(F106) CONTROL MODE
(F800) AUTOTUNE MODE

Motor Nameplate (IM)

MOTOR POLES(F804) 0

50 Hz (F118) BASE FREQUENCY
50 Hz (F810) MOTOR RATED FREQUENCY
0.2 kW (F801) RATED POWER
220 V (F802) RATED VOLTAGE
1 A (F803) RATED CURRENT
1460 RPM/min (F805) RATED SPEED

Induction Motor Data

13.67 Ohm (F806) STATOR RESISTANCE
6.835 Ohm (F807) ROTOR RESISTANCE
37.12 mH (F808) LEAKAGE INDUCTANCE
758.6 mH (F809) MUTUAL INDUCTANCE

Motor Nameplate (PMAC)

192.4 mV/RPM (F870) BACK ELECTROMOTIVE FORCE
56.6 mH (F871) D-AXIS INDUCTANCE
108.1 mH (F872) Q-AXIS INDUCTANCE
4.57 Ohm (F873) STATOR RESISTANCE

Pattern Generator

4000 Hz (F153) SWITCHING FREQUENCY
TRUE (F159) RANDOM PATTERN
0.3 s (F812) DEFLUX DELAY
PWM ON (F859) BEHAVIOUR AT 0Hz

Rotational to Linear Speed Conversion

1 (F133) DRIVE RATIO OF DRIVEN SYSTEM
0.001 m (F134) TRANSMISSION-WHEEL RADIUS

V/F Current Boost

FALSE (F641) ENABLE
0.3 A (F844) NO-LOAD CURRENT BOOST

Voltage Control

100 % (F152) VOLTAGE AT BASE FREQUENCY
DISABLED (F154) AUTOMATIC VOLTAGE MODE

Slip Compensation

0 % (F136) SLIP COMPENSATION

Advanced Control

SVC (F861) PMAC STARTING MODE
5 % (F862) FREQUENCY SWITCHOVER POINT
20 % (F876) INJECTION CURRENT WITHOUT LOAD
0 % (F877) STARTING CURRENT
10 % (F878) INJECTION CURRENT COMPENSATION WITHOUT LOAD CUTOFF
1 (F823) CURRENT LOOP Kp
1 (F825) CURRENT LOOP Ki
50 (F479) ESTIMATOR Kp
0.1 (F480) ESTIMATOR Ki
0 (F475) POSITION OFFSET

V/F Fluxing

LINEAR (F137) V/F SHAPE
7 (F138) LINEAR BOOST
1.5 (F139) SQUARE BOOST
1 Hz (F140) FREQUENCY 1
0 % (F141) VOLTAGE 1
5 Hz (F142) FREQUENCY 2
13 % (F143) VOLTAGE 2
10 Hz (F144) FREQUENCY 3
24 % (F145) VOLTAGE 3
20 Hz (F146) FREQUENCY 4
45 % (F147) VOLTAGE 4
30 Hz (F148) FREQUENCY 5
63 % (F149) VOLTAGE 5
40 Hz (F150) FREQUENCY 6
81 % (F151) VOLTAGE 6

Speed Loop Gains

0.2 (F813) SPEED LOOP KP1
0.2 (F814) SPEED LOOP KI1
0.2 (F815) SPEED LOOP KP2
0.2 (F816) SPEED LOOP KI2
5 Hz (F817) KP KI SWITCHING FREQ 1
50 Hz (F818) KP KI SWITCHING FREQ 2

Torque Control

SPEED CONTROL (FC00) MODE
100 % (FC09) TORQUE REFERENCE
10 % (FC17) OFFSET TORQUE
10 % (FC23) FORWARD SPEED LIMIT
10 % (FC25) REVERSE SPEED LIMIT
200 % (FC30) DRIVING TORQUE LIMIT
200 % (FC35) RE-GENERATING TORQUE LIMIT
0.1 s (FC01) SWITCHOVER DELAY TIME
1 s (FC02) TORQUE ACCEL/DECEL TIME
10 % (FC16) OFFSET TORQUE CUT-OFF FREQUENCY
3 (FC29) DRIVING TORQUE LIMIT COEFFICIENT
3 (FC34) RE-GENERATING TORQUE LIMIT COEFFICIENT

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Trips and Protection

Fault History

[NEWEST] FAULT 1 (F708)	NONE
FREQUENCY 1 (F711)	0 Hz
CURRENT 1 (F712)	0 A
VOLTAGE 1 (F713)	0 V
FAULT 2 (F709)	NONE
FREQUENCY 2 (F714)	0 Hz
CURRENT 2 (F715)	0 A
VOLTAGE 2 (F716)	0 V
[OLDEST] FAULT 3 (F710)	NONE
FREQUENCY 3 (F717)	0 Hz
CURRENT 3 (F718)	0 A
VOLTAGE 3 (F719)	0 V
OVER CURRENT COUNT (F720)	0
OVER CURRENT 1 COUNT (F739)	0
OVER VOLTAGE COUNT (F721)	0
OVER TEMPERATURE COUNT (F722)	0
OVERLOAD COUNT (F723)	0

V/Hz Protection

VOLTAGE AND CURRENT	(F607) PROTECTION MODE
160 %	(F608) CURRENT LIMIT
130 %	(F609) VOLTAGE LIMIT
60 s	(F610) PROTECTION TIMEOUT

Current Limit SVC

2	(F822) CURRENT LIMIT
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Overcurrent 1 Protection

TRUE	(F737) ENABLE TRIP
2.5	(F738) TRIP LEVEL

Motor Overload Protection

MODE 1	(F753) MODE
80 %	(F705) WARNING TIME
100 %	(F707) CURRENT LEVEL
60	(F750) MAX TIME

Inverter Overload Protection

80 %	(F704) WARNING TIME
150 %	(F706) CURRENT LEVEL

Analog Input Break Protection

DISABLED	(F741) MODE
50 %	(F742) TRIP THRESHOLD

Input Phase Loss Protection

TRUE	(F724) ENABLE TRIP
0.5 s	(F728) FILTERING TIME CONSTANT

Output Phase Loss Protection

FALSE	(F727) ENABLE TRIP
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Under Voltage Protection

200 V	(F732) TRIP THRESHOLD
5 s	(F729) FILTERING TIME CONSTANT

Over Temperature Protection

TRUE	(F726) ENABLE TRIP
5 s	(F730) FILTERING TIME CONSTANT
80 %	(F745) WARNING THRESHOLD
TRUE	(F747) AUTO-ADJUST SWITCHING FREQ
RUNNING STATE	(F702) FAN CONTROL

Auxiliary Functions

DC Braking

DISABLED	BRAKING THRESHOLD (F611)
1 Hz	(F600) MODE
10 %	(F601) INITIAL FREQUENCY
10 %	(F602) STARTING EFFICIENCY
0.5 s	(F603) STOPPING EFFICIENCY
0.5 s	(F604) STARTING TIME
80 %	(F605) STOPPING TIME
TRUE	(F612) BRAKING DUTY RATIO
	(F622) AUTO DUTY RATIO

Flycatching

DISABLED	(F613) FUNCTION
FROM MAX FREQUENCY	(F614) MODE
20	(F615) RATE
60 s	(F619) FAULT TIMEOUT
100	(F627) CURRENT LIMITING

Auto-Start

FALSE	(F213) AFTER REPOWERED
FALSE	(F214) AFTER FAULT RESET
60 s	(F215) START DELAY TIME
0	(F216) MAX RETRIES
3 s	(F217) RESET DELAY TIME

VDC Adjustment

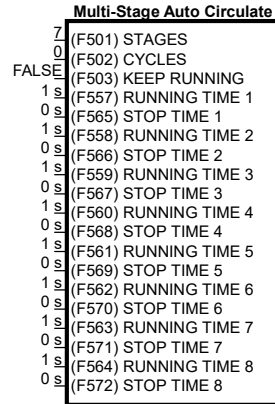
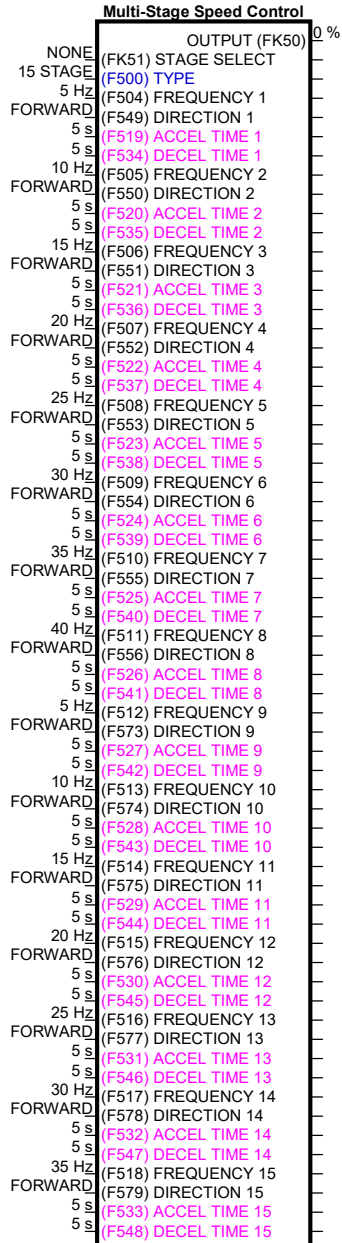
DISABLED	(F631) MODE
380 V	(F632) TARGET VOLTAGE

High-Frequency Performance

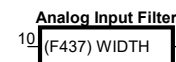
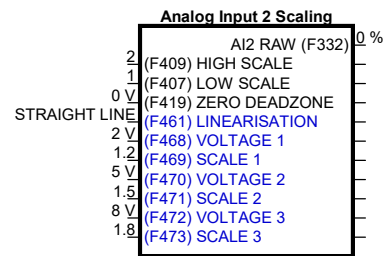
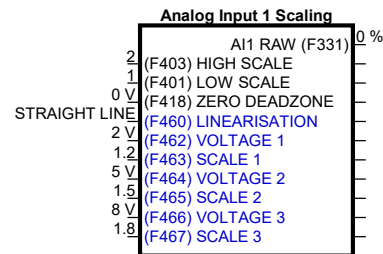
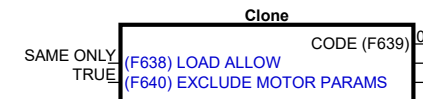
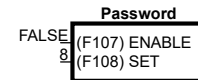
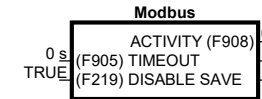
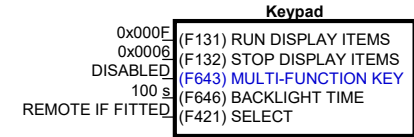
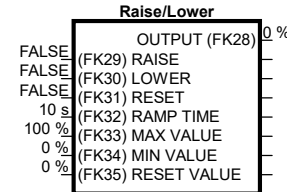
MODE 1	(F650) MODE
100	(F651) ENABLE FREQUENCY
95	(F652) DISABLE FREQUENCY

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Multi-stage Speed Control

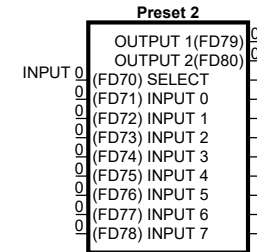
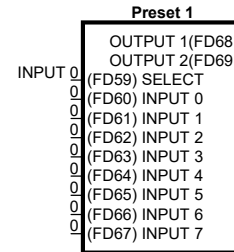
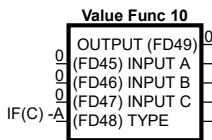
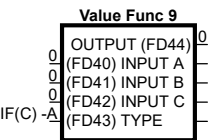
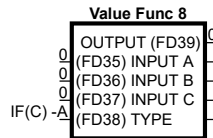
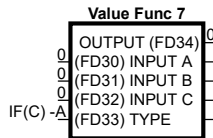
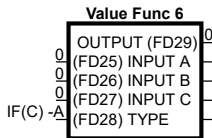
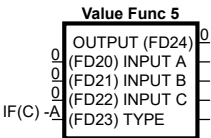
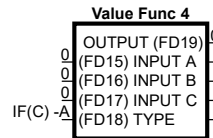
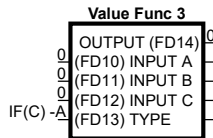
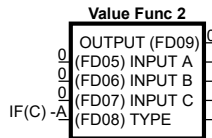
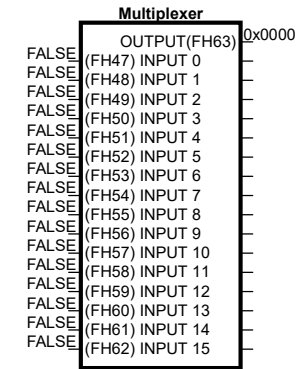
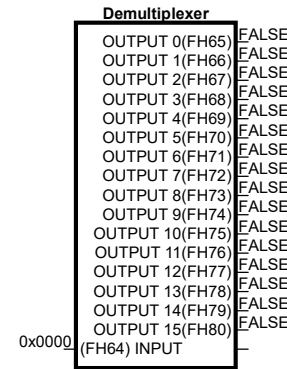
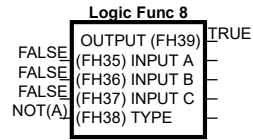
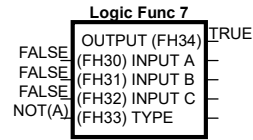
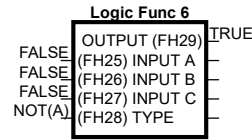
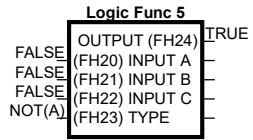
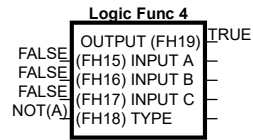
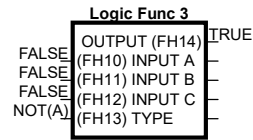
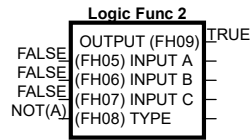
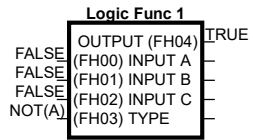


Other



DWN			SIZE A	DWG. NO.	RFA
CHK		/2/anty-pid-1.024	ISSUE		
APP			SCALE	SHEET	4 OF 6
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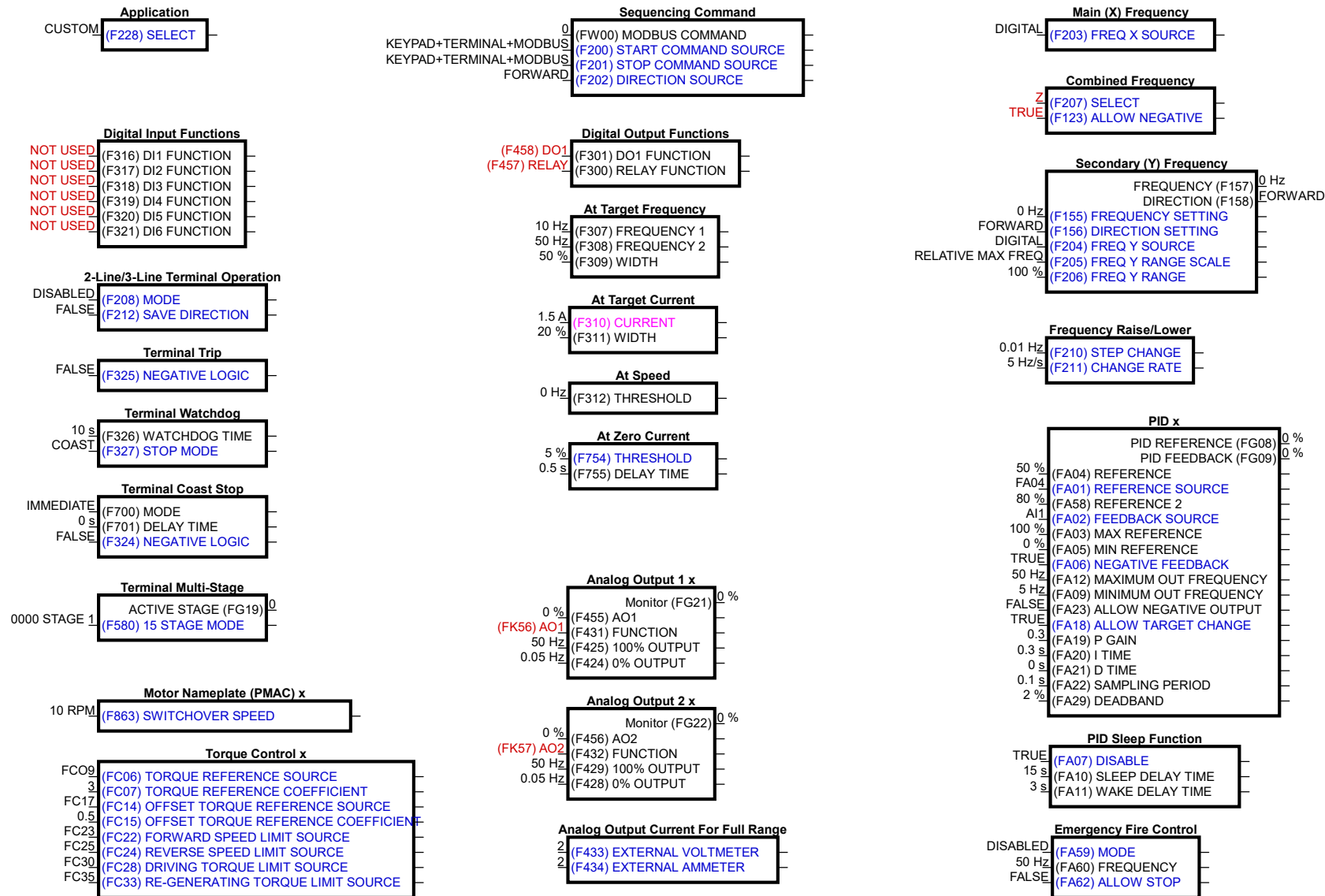
General Purpose Blocks



DWN			SIZE A	DWG. NO.	RFA
CHK		/2/anty-pid-1.024	ISSUE		
APP			SCALE	SHEET	5 OF 6
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Deprecated Blocks

Avoid using these blocks, their functionality has been superseded and only are included in order to provide backward compatibility.



DWN			SIZE A	DWG. NO.	RFA
CHK		/2/anty-pid-1.024	ISSUE		
APP			SCALE	SHEET	6 OF 6
EDIT	LOC				