B.15 U: Monitors

Monitor parameters allow the user to view drive status, fault information, and other data concerning drive operation.

◆ U1: Operation Status Monitors

No. (Addr. Hex)	Name		Description	Analog Output Level	Unit
U1-01 (0040)	Frequency Reference	Frequency Ref	All Modes Monitors the frequency reference. Display units are determined by o1-03.	10 V: Max frequency (-10 to +10 V)	0.01 Hz
U1-02 (0041)	Output Frequency	Output Freq	All Modes Displays the output frequency. Display units are determined by o1-03.	10 V: Max frequency (-10 to +10 V)	0.01 Hz
U1-03 (0042)	Output Current	Output Current	All Modes Displays the output current. **Note:** The unit is expressed in 1 A for models 4A0930 and 4A1200.	10 V: Drive rated current	<1> <2>
U1-04 (0043)	Control Method	Control Method	All Modes 0: V/f Control 1: V/f Control with PG 2: Open Loop Vector Control 3: Closed Loop Vector Control 5: Open Loop Vector Control for PM 6: Advanced Open Loop Vector Control for PM 7: Closed Loop Vector Control for PM	No signal output available	–
U1-05 (0044)	Motor Speed	Motor Speed	V/f V/f w PG OLV CLV OLV/PM AOLV/PM CLV/PM Displays the motor speed feedback. Display units are determined by o1-03.	10 V: Max frequency (-10 to +10 V)	0.01 Hz
U1-06 (0045)	Output Voltage Reference	Output Voltage	All Modes Displays the output voltage.	10 V: 200 Vrms <3>	0.1 Vac
U1-07 (0046)	DC Bus Voltage	DC Bus Voltage	All Modes Displays the DC bus voltage.	10 V: 400 V <3>	1 Vdc
U1-08 (0047)	Output Power	Output kWatts	All Modes Displays the output power (this value is calculated internally).	10 V: Drive capacity (motor capacity) kW (-10 to +10 V) <4>	<4>
U1-09 (0048)	Torque Reference	Torque Reference	V/f V/f w PG OLV CLV OLV/PM AOLV/PM CLV/PM Monitors the internal torque reference.	10 V: Motor rated torque (-10 to +10 V)	0.1%

No. (Addr. Hex)	Name		Description	Analog Output Level	Unit
U1-10 (0049)	Input Terminal Status	Input Term Sts	All Modes Displays the input terminal status. U1-10=00000000 1 Digital input 1 (terminal S1 enabled) 1 Digital input 2 (terminal S2 enabled) 1 Digital input 3 (terminal S3 enabled) 1 Digital input 4 (terminal S4 enabled) 1 Digital input 5 (terminal S5 enabled) 1 Digital input 6 (terminal S6 enabled) 1 Digital input 7 (terminal S7 enabled) 1 Digital input 8 (terminal S8 enabled)	No signal output available	–
U1-11 (004A)	Output Terminal Status	Output Term Sts	All Modes Displays the output terminal status. U1-11=00000000 1 Multi-Function Digital Output (terminal M1-M2) 1 Multi-Function Digital Output (terminal M3-M4) 1 Multi-Function Digital Output (terminal M5-M6) 0 Not Used 1 Fault Relay (terminal MA-MC closed MA-MC open)	No signal output available	–
U1-12 (004B)	Drive Status	Int Ctl Sts 1	All Modes Displays the drive operation status. U1-12=00000000 1 During run 1 During zero-speed 1 During REV 1 During fault reset signal input 1 During speed agree 1 Drive ready 1 During alarm detection 1 During fault detection	No signal output available	–
U1-13 (004E)	Terminal A1 Input Level	Term A1 Level	All Modes Displays the signal level to analog input terminal A1.	10 V: 100% (-10 to +10 V)	0.1%
U1-14 (004F)	Terminal A2 Input Level	Term A2 Level	All Modes Displays the signal level to analog input terminal A2.	10 V: 100% (-10 to +10 V)	0.1%
U1-15 (0050)	Terminal A3 Input Level	Term A3 Level	All Modes Displays the signal level to analog input terminal A3.	10 V: 100% (-10 to +10 V)	0.1%
U1-16 (0053)	Output Frequency after Soft Starter	SFS Output	All Modes Displays output frequency with ramp time and S-curves. Units determined by o1-03.	10 V: Max frequency (-10 to +10 V)	0.01 Hz

No. (Addr. Hex)	Name		Description	Analog Output Level	Unit
U1-17 (0058)	DI-A3 Input Status	DI Opt Status	All Modes Displays the reference value input from the DI-A3 option card. Display will appear in hexadecimal as determined by the digital card input selection in F3-01. 3FFFF: Set (1 bit) + sign (1 bit) + 16 bit	No signal output available	–
U1-18 (0061)	oPE Fault Parameter	OPE Error Code	All Modes Displays the parameter number that caused the oPE02 or oPE08 operation error.	No signal output available	–
U1-19 (0066)	MEMOBUS/Modbus Error Code	Transmit Err	All Modes Displays the contents of a MEMOBUS/Modbus error. U1-19=00000000 1 CRC Error 1 Data Length Error 0 Not Used 1 Parity Error 1 Overrun Error 1 Framing Error 1 Timed Out 0 Not Used	No signal output available	–
U1-21 (0077)	AI-A3 Terminal V1 Input Voltage Monitor	AI Opt Ch1 Level	All Modes Displays the input voltage to terminal V1 on analog input card AI-A3.	10 V: 100% (-10 to +10 V)	0.1%
U1-22 (072A)	AI-A3 Terminal V2 Input Voltage Monitor	AI Opt Ch2 Level	All Modes Displays the input voltage to terminal V2 on analog input card AI-A3.	10 V: 100% (-10 to +10 V)	0.1%
U1-23 (072B)	AI-A3 Terminal V3 Input Voltage Monitor	AI Opt Ch3 Level	All Modes Displays the input voltage to terminal V3 on analog input card AI-A3.	10 V: 100% (-10 to +10 V)	0.1%
U1-24 (007D)	Input Pulse Monitor	Term RP Inp Freq	All Modes Displays the frequency to pulse train input terminal RP.	Determined by H6-02	1 Hz
U1-25 (004D)	Software Number (Flash)	CPU 1 SW Number	All Modes FLASH ID	No signal output available	–
U1-26 (005B)	Software No. (ROM)	CPU 2 SW Number	All Modes ROM ID	No signal output available	–
U1-27 (07A8)	Message ID (OPR)	MessageID (OPR)	All Modes OPR ID	No signal output available	–
U1-28 (07A9)	Message ID (INV)	MessageID (INV)	All Modes INV ID	No signal output available	–
U1-29 (07AA)	Software No. (PWM)	CPU 3 SW Number	All Modes PWM ID **Note:** This monitor is only displayed in models 4A0930 and 4A1200.	No signal output available	–

<1> Display is in the following units:
2A0004 to 2A0040, 4A0002 to 4A0023, and 5A0007 to 5A0017: 0.01 A units.
2A0056 to 2A0415, 4A0031 to 4A0675, and 5A0022 to 5A0242: 0.1 A units.
4A0930 and 4A1200: 1 A units.

<2> The values of U1-03, U2-05, and U4-13 are displayed on the digital operator in units of amperes. When those monitors are checked using MEMOBUS/Modbus communications, the monitor values in MEMOBUS/Modbus communications are displayed as: numeric value / 8192 × drive rated current (A) from the condition “192 (maximum value) = drive rated current (A)”

<3> Values shown are specific to 200 V class drives. Double the value for 400 V class drives. Multiply the value by 2.875 for 600 V class drives.

<4> In V/f and V/f w/PG control modes, 10 V = drive capacity (kW). In OLV, CLV, OLV/PM, AOLV/PM, and CLV/PM control modes, 10 V = motor rated power (E2-11) (kW).

◆ U2: Fault Trace

No. (Addr. Hex)	Name	LCD Display	Description	Analog Output Level	Unit
U2-01 (0080)	Current Fault	Current Fault	All Modes Displays the current fault.	No signal output available	–
U2-02 (0081)	Previous Fault	Last Fault	All Modes Displays the previous fault.	No signal output available	–
U2-03 (0082)	Frequency Reference at Previous Fault	Frequency Ref	All Modes Displays the frequency reference at the previous fault.	No signal output available	0.01 Hz
U2-04 (0083)	Output Frequency at Previous Fault	Output Freq	All Modes Displays the output frequency at the previous fault.	No signal output available	0.01 Hz
U2-05 (0084)	Output Current at Previous Fault	Output Current	All Modes Displays the output current at the previous fault. **Note:** The unit is expressed in 1 A for models 4A0930 and 4A1200.	No signal output available	<1> <2>
U2-06 (0085)	Motor Speed at Previous Fault	Motor Speed	V/f V/f w PG OLV CLV OLV/PM AOLV/PM CLV/PM Displays the motor speed at the previous fault.	No signal output available	0.01 Hz
U2-07 (0086)	Output Voltage at Previous Fault	Output Voltage	All Modes Displays the output voltage at the previous fault.	No signal output available	0.1 Vac
U2-08 (0087)	DC Bus Voltage at Previous Fault	DC Bus Voltage	All Modes Displays the DC bus voltage at the previous fault.	No signal output available	1 Vdc
U2-09 (0088)	Output Power at Previous Fault	Output kWatts	All Modes Displays the output power at the previous fault.	No signal output available	0.1 kW
U2-10 (0089)	Torque Reference at Previous Fault	Torque Reference	V/f V/f w PG OLV CLV OLV/PM AOLV/PM CLV/PM Displays the torque reference at the previous fault.	No signal output available	0.1%
U2-11 (008A)	Input Terminal Status at Previous Fault	Input Term Sts	All Modes Displays the input terminal status at the previous fault. Displayed as in U1-10.	No signal output available	–
U2-12 (008B)	Output Terminal Status at Previous Fault	Output Term Sts	All Modes Displays the output status at the previous fault. Displayed as in U1-11.	No signal output available	–
U2-13 (008C)	Drive Operation Status at Previous Fault	Inverter Status	All Modes Displays the operation status of the drive at the previous fault. Displayed as in U1-12.	No signal output available	–
U2-14 (008D)	Cumulative Operation Time at Previous Fault	Elapsed time	All Modes Displays the cumulative operation time at the previous fault.	No signal output available	1 h
U2-15 (07E0)	Run Speed after Soft Starter at Previous Fault	SFS Output	All Modes Displays the run speed after a soft start when a previous fault occurred. Displayed as in U1-16.	No signal output available	0.01 Hz
U2-16 (07E1)	Motor q-Axis Current at Previous Fault	Motor Iq Current	All Modes Displays the q-Axis current for the motor at the previous fault. Displayed as in U6-01.	No signal output available	0.1%
U2-17 (07E2)	Motor d-Axis Current at Previous Fault	Motor Id Current	V/f V/f w PG OLV CLV OLV/PM AOLV/PM CLV/PM Displays the d-Axis current for the motor at the previous fault. Displayed as in U6-02.	No signal output available	0.1%
U2-19 (07E4)	Rotor Deviation at Previous Fault	d-q Axis Dev Err	V/f V/f w PG OLV CLV OLV/PM AOLV/PM CLV/PM Displays the degree of rotor deviation when the most recent fault occurred. Displayed as in U6-10.	No signal output available	0.1 deg

No. (Addr. Hex)	Name	LCD Display	Description	Analog Output Level	Unit
U2-20 (008E)	Heatsink Temperature at Previous Fault	Actual Fin Temp	All Modes Displays the temperature of the heatsink when the most recent fault occurred. Displayed as in U4-08.	No signal output available	1 °C
U2-27 (07FA)	Motor Temperature at Previous Fault (NTC)	Moter temp (NTC)	All Modes Displays the temperature of the motor when the most recent fault occurred. Displayed as in U4-32. **Note:** This monitor is only displayed in models 4A0930 and 4A1200.	No signal output available	1 °C
U2-28 (07FC)	Malfunctioned Module	Fault Axis	All Modes Display the module where the previous fault occurred at a decimal number. **Note:** This monitor is only displayed in models 4A0930 and 4A1200.	No signal output available	–

<1> Display is in the following units:
2A0004 to 2A0040, 4A0002 to 4A0023, and 5A0007 to 5A0017: 0.01 A units.
2A0056 to 2A0415, 4A0031 to 4A0675, and 5A0022 to 5A0242: 0.1 A units.
4A0930 and 4A1200: 1 A units.

<2> The values of U1-03, U2-05, and U4-13 are displayed on the digital operator in units of amperes. When those monitors are checked using MEMOBUS/Modbus communications, the monitor values in MEMOBUS/Modbus communications are displayed as: numeric value / 8192 × drive rated current (A) from the condition “192 (maximum value) = drive rated current (A)”

◆ U3: Fault History

No. (Addr. Hex)	Name	LCD Display	Description	Analog Output Level	Unit
U3-01 to U3-04 (0090 to 0093 (0800 to 0803))	1st to 4th Most Recent Fault	Fault Message □	All Modes Displays the first to the fourth most recent faults.	No signal output available	–
U3-05 to U3-10 (0804 to 0809)	5th to 10th Most Recent Fault	Fault Message □	All Modes Displays the fifth to the tenth most recent faults. After ten faults, data for the oldest fault is deleted. The most recent fault appears in U3-01, with the next most recent fault appearing in U3-02. The data is moved to the next monitor parameter each time a fault occurs.	No signal output available	–
U3-11 to U3-14 (0094 to 0097 (080A to 080D))	Cumulative Operation Time at 1st to 4th Most Recent Fault	Elapsed Time □	All Modes Displays the cumulative operation time when the first to the fourth most recent faults occurred.	No signal output available	1 h
U3-15 to U3-20 (080E to 0813)	Cumulative Operation Time at 5th to 10th Most Recent Fault	Elapsed Time □	All Modes Displays the cumulative operation time when the fifth to the tenth most recent faults occurred.	No signal output available	1 h

◆ U4: Maintenance Monitors

No. (Addr. Hex)	Name	LCD Display	Description	Analog Output Level	Unit
U4-01 (004C) <1>	Cumulative Operation Time	Drv Elapsed Time	All Modes Displays the cumulative operation time of the drive. The value for the cumulative operation time counter can be reset in parameter o4-01. Use parameter o4-02 to determine if the operation time should start as soon as the power is switched on or only while the Run command is present. The maximum number displayed is 99999, after which the value is reset to 0.	No signal output available	1 h
U4-02 (0075)	Number of Run Commands	RUN Cmd Counter	All Modes Displays the number of times the Run command is entered. Reset the number of Run commands using parameter o4-13. This value will reset to 0 and start counting again after reaching 65535.	No signal output available	1 Time
U4-03 (0067) <2>	Cooling Fan Operation Time	Fan Elapsed TIme	All Modes Displays the cumulative operation time of the cooling fan. The default value for the fan operation time is reset in parameter o4-03. This value will reset to 0 and start counting again after reaching 99999.	No signal output available	1 h
U4-04 (007E)	Cooling Fan Maintenance	Fan Life Mon	All Modes Displays main cooling fan usage time as a percentage of its expected performance life. Parameter o4-03 can be used to reset this monitor. Replace the fan when this monitor reaches 90%.	No signal output available	1%
U4-05 (007C)	Capacitor Maintenance	Cap Life Mon	All Modes Displays main circuit capacitor usage time as a percentage of their expected performance life. Parameter o4-05 can be used to reset this monitor. Replace the capacitor when this monitor reaches 90%.	No signal output available	1%
U4-06 (07D6)	Soft Charge Bypass Relay Maintenance	ChgCirc Life Mon	All Modes Displays the soft charge bypass relay maintenance time as a percentage of its estimated performance life. Parameter o4-07 can be used to reset this monitor. Replace the soft charge bypass relay when this monitor reaches 90%.	No signal output available	1%
U4-07 (07D7)	IGBT Maintenance	IGBT Life Mon	All Modes Displays IGBT usage time as a percentage of the expected performance life. Parameter o4-09 can be used to reset this monitor. Replace the IGBT when this monitor reaches 90%.	No signal output available	1%
U4-08 (0068)	Heatsink Temperature	Heatsink Temp	All Modes Displays the heatsink temperature.	10 V: 100 °C	1 °C
U4-09 (005E)	LED Check	LED Oper Check	All Modes Lights all segments of the LED to verify that the display is working properly.	No signal output available	–
U4-10 (005C)	kWh, Lower 4 Digits	kWh Lower 4 dig	All Modes Monitors the drive cumulative output power usage. The value is shown as a 9-digit number displayed across two monitors U4-10 and U4-11. Example: 12345678.9 kWh is displayed as: U4-10: 678.9 kWh U4-11: 12345 MWh	No signal output available	1 kWh
U4-11 (005D)	kWh, Upper 5 Digits	kWh Upper 5 dig		No signal output available	1 MWh
U4-13 (07CF)	Peak Hold Current	Current PeakHold	All Modes Displays the highest current value that occurred during run. **Note:** The unit is expressed in 1 A for models 4A0930 and 4A1200.	No signal output available	0.01 A <3> <4> <5>

No. (Addr. Hex)	Name	LCD Display	Description	Analog Output Level	Unit
U4-14 (07D0)	Peak Hold Output Frequency	Freq@ I PeakHold	All Modes Displays the output frequency when the current value shown in U4-13 occurred.	No signal output available	0.01 Hz
U4-16 (07D8)	Motor Overload Estimate (oL1)	Motor OL1 Level	All Modes Shows the value of the motor overload detection accumulator. 100% is equal to the oL1 detection level.	10 V: 100%	0.1%
U4-18 (07DA)	Frequency Reference Source Selection	Reference Source	All Modes Displays the source for the frequency reference as XY-nn. **X: indicates which reference is used:** 1 = Reference 1 (b1-01) 2 = Reference 2 (b1-15) **Y-nn: indicates the reference source** 0-01 = Digital operator 1-00 = Analog 1-01 = Analog (terminal A1) 1-02 = Analog (terminal A2) 1-03 = Analog (terminal A3) 2-02 to 17 = Multi-step speed (d1-02 to 17) 3-01 = MEMOBUS/Modbus communications 4-01 = Communication option card 5-01 = Pulse input 7-01 = DWEZ 9-01 = Up/Down Command	No signal output available	–
U4-19 (07DB)	Frequency Reference from MEMOBUS/ Modbus Comm.	MEMOBUS Freq Ref	All Modes Displays the frequency reference provided by MEMOBUS/ Modbus (decimal).	No signal output available	0.01%
U4-20 (07DC)	Option Frequency Reference	Option Freq Ref	All Modes Displays the frequency reference input by an option card (decimal).	No signal output available	–
U4-21 (07DD)	Run Command Source Selection	Run Cmd Source	All Modes Displays the source for the Run command as XY-nn. **X: Indicates which Run source is used:** 1 = Reference 1 (b1-02) 2 = Reference 2 (b1-16) **Y: Input power supply data** 0 = Digital operator 1 = External terminals 3 = MEMOBUS/Modbus communications 4 = Communication option card 7 = DWEZ **nn: Run command limit status data** 00: No limit status. 01: Run command was left on when stopped in the PRG mode 02: Run command was left on when switching from LOCAL to REMOTE operation 03: Waiting for soft charge bypass contactor after power up (Uv or Uv1 flashes after 10 s) 04: Waiting for “Run command prohibited” time period to end 05: Fast Stop (digital input, digital operator) 06: b1-17 (Run command given at power-up) 07: During baseblock while coast to stop with timer 08: Frequency reference is below minimal reference during baseblock 09: Waiting for Enter command	No signal output available	–
U4-22 (07DE)	MEMOBUS/Modbus Communications Reference	MEMOBUS Ref Reg	All Modes Displays the drive control data set by MEMOBUS/Modbus communications register no. 0001H as a four-digit hexadecimal number.	No signal output available	–
U4-23 (07DF)	Communication Option Card Reference	Option Ref Reg	All Modes Displays drive control data set by an option card as a four-digit hexadecimal number.	No signal output available	–

No. (Addr. Hex)	Name	LCD Display	Description	Analog Output Level	Unit
U4-32 (07FB)	Motor Temperature (NTC)	Moter temp (NTC)	All Modes Displays the motor temperature (NTC). U4-32 will display "20 °C" when a multi-function analog input is not set for motor thermistor input (H1-□□ = 17H). **Note:** This monitor is only displayed in models 4A0930 and 4A1200.	200 °C	1 °C
U4-37 (1044)	oH Alarm Location Monitor	OH Alarm Axis	All Modes Displays the module where the oH alarm occurred as a binary number. **Note:** This monitor is only displayed in models 4A0930 and 4A1200.	No signal output available	–
U4-38 (1045)	FAn Alarm Location Monitor	FAN Alarm Axis	All Modes Displays the module where the FAn alarm occurred as a binary number. **Note:** This monitor is only displayed in models 4A0930 and 4A1200.	No signal output available	–
U4-39 (1046)	voF Alarm Location Monitor	VOF Alarm Axis	All Modes Displays the module where the voF alarm occurred as a binary number. **Note:** This monitor is only displayed in models 4A0930 and 4A1200.	No signal output available	–

<1> The MEMOBUS/Modbus communications data is in 10 h units. If data in 1 h units are also required, refer to register number 0099H.

<2> The MEMOBUS/Modbus communications data is in 10 h units. If data in 1 h units are also required, refer to register number 009BH.

<3> Display is in the following units:
2A0004 to 2A0040, 4A0002 to 4A0023, and 5A0007 to 5A0017: 0.01 A units.
2A0056 to 2A0415, 4A0031 to 4A0675, and 5A0022 to 5A0242: 0.1 A units.
4A0930 and 4A1200: 1 A units.

<4> The values of U1-03, U2-05, and U4-13 are displayed on the digital operator in units of amperes. When those monitors are checked using MEMOBUS/Modbus communications, the monitor values in MEMOBUS/Modbus communications are displayed as: numeric value / 8192 × drive rated current (A) from the condition "192 (maximum value) = drive rated current (A)"

<5> When reading the value of this monitor via MEMOBUS/Modbus a value of 8192 is equal to 100% of the drive rated output current.

◆ U5: PID Monitors

No. (Addr. Hex)	Name	LCD Display	Description	Analog Output Level	Unit
U5-01 (0057)	PID Feedback	PID Feedback 1	All Modes Displays the PID feedback value.	10 V: 100% (-10 to +10 V)	0.01%
U5-02 (0063)	PID Input	PID Input	All Modes Displays the amount of PID input (deviation between PID setpoint and feedback).	10 V: 100% (-10 to +10 V)	0.01%
U5-03 (0064)	PID Output	PID Output	All Modes Displays PID control output.	10 V: 100% (-10 to +10 V)	0.01%
U5-04 (0065)	PID Setpoint	PID Setpoint	All Modes Displays the PID setpoint.	10 V: 100% (-10 to +10 V)	0.01%
U5-05 (07D2)	PID Differential Feedback	PID Feedback 2	All Modes Displays the 2nd PID feedback value if differential feedback is used (H3-□□ = 16).	10 V: 100% (-10 to +10 V)	0.01%
U5-06 (07D3)	PID Adjusted Feedback	PID Diff Fdbk	All Modes Displays the difference of both feedback values if differential feedback is used (U5-01 - U5-05). If differential feedback is not used, then U5-01 and U5-06 will be the same.	10 V: 100% (-10 to +10 V)	0.01%

No. (Addr. Hex)	Name	LCD Display	Description	Analog Output Level	Unit
U5-21 (0872) <1>	Automatically Calculated Energy Saving Coefficient Ki Value	Ki Auto Cal Val	V/f V/f w PG OLV CLV OLV/PM AOLV/PM CLV/PM Displays the energy saving coefficient Ki value.	No signal output available	0.01
U5-22 (0873) <1>	Automatically Calculated Energy Saving Coefficient Kt Value	Kt Auto Cal Val	V/f V/f w PG OLV CLV OLV/PM AOLV/PM CLV/PM Displays the energy saving coefficient Kt value.	No signal output available	0.01

<1> Available in drive software versions PRG: 1015 and later.

◆ U6: Operation Status Monitors

No. (Addr. Hex)	Name	LCD Display	Description	Analog Output Level	Unit
U6-01 (0051)	Motor Secondary Current (Iq)	Mot SEC Current	All Modes Displays the value of the motor secondary current (Iq). Motor rated secondary current is 100%.	10 V: Motor secondary rated current (-10 to +10 V)	0.1%
U6-02 (0052)	Motor Excitation Current (Id)	Mot EXC Current	V/f V/f w PG OLV CLV OLV/PM AOLV/PM CLV/PM Displays the value calculated for the motor excitation current (Id). Motor rated secondary current is 100%.	10 V: Motor secondary rated current (-10 to +10 V)	0.1%
U6-03 (0054)	ASR Input	ASR Input	V/f V/f w PG OLV CLV OLV/PM AOLV/PM CLV/PM Displays the input and output values when using ASR control.	10 V: Max frequency (-10 to +10 V)	0.01%
U6-04 (0055)	ASR Output	ASR Output		10 V: Motor secondary rated current (-10 to +10 V)	
U6-05 (0059)	Output Voltage Reference (Vq)	Voltage Ref (Vq)	V/f V/f w PG OLV CLV OLV/PM AOLV/PM CLV/PM Output voltage reference (Vq) for the q-Axis.	10 V: 200 Vrms (-10 to +10 V) <1>	0.1 Vac
U6-06 (005A)	Output Voltage Reference (Vd)	Voltage Ref (Vd)	V/f V/f w PG OLV CLV OLV/PM AOLV/PM CLV/PM Output voltage reference (Vd) for the d-Axis.	10 V: 200 Vrms (-10 to +10 V) <1>	0.1 Vac
U6-07 (005F)	q-Axis ACR Output	ACR(q) Output	V/f V/f w PG OLV CLV OLV/PM AOLV/PM CLV/PM Displays the output value for current control relative to motor secondary current (q-Axis).	10 V: 200 Vrms (-10 to +10 V) <1>	0.1%
U6-08 (0060)	d-Axis ACR Output	ACR(d) Output	V/f V/f w PG OLV CLV OLV/PM AOLV/PM CLV/PM Displays the output value for current control relative to motor secondary current (d-Axis).	110 V: 200 Vrms (-10 to +10 V) <1>	0.1%
U6-09 (07C0)	Advance Phase Compensation (Δθ)	d-q Axis Comp	V/f V/f w PG OLV CLV OLV/PM AOLV/PM CLV/PM Displays the degree of forward phase correction after calculating the deviation of Δθcmp.	10 V: 180 deg -10 V: -180 deg (-10 to +10 V)	0.1 deg
U6-10 (07C1)	Control Axis Deviation (Δθ)	d-q Axis Devt	V/f V/f w PG OLV CLV OLV/PM AOLV/PM CLV/PM Displays the amount of deviation between the actual d-Axis / q-Axis and the γ-Axis / δ-Axis used for motor control.	10 V: 180 deg -10 V: -180 deg (-10 to +10 V)	0.1 deg
U6-13 (07CA)	Flux Position Detection (sensor)	FluxPosition Fb	V/f V/f w PG OLV CLV OLV/PM AOLV/PM CLV/PM Monitors the value of the flux position detection (sensor).	10 V: 180 deg -10 V: -180 deg (-10 to +10 V)	0.1 deg

No. (Addr. Hex)	Name	LCD Display	Description	Analog Output Level	Unit
U6-14 (07CB)	Flux Position Estimation (observer)	FluxPosition Est	V/f V/f w PG OLV CLV OLV/PM **AOLV/PM** CLV/PM Monitors the value of the flux position estimation.	10 V: 180 deg -10 V: -180 deg (-10 to +10 V)	0.1 deg
U6-18 (07CD)	Speed Detection PG1 Counter	PG1 CounterValue	**All Modes** Monitors the number of pulses for speed detection (PG1).	10 V: 65536	1 pulse
U6-19 (07E5)	Speed Detection PG2 Counter	PG2 CounterValue	**All Modes** Monitors the number of pulses for speed detection (PG2).	10 V: 65536	1 pulse
U6-20 (07D4)	Frequency Reference Bias (Up/Down 2)	Up/Dn 2 Bias Val	**All Modes** Displays the bias value used to adjust the frequency reference.	10 V: Max frequency	0.1%
U6-21 (07D5)	Offset Frequency	Offset Frequency	**All Modes** Displays the total value of the offset frequencies d7-01, d7-02 and d7-03 selected with digital inputs 44 to 46.	10 V: Max frequency	0.1%
U6-22 (0062)	Zero Servo Pulse Movement	Zero Servo Pulse	V/f V/f w PG OLV **CLV** OLV/PM AOLV/PM **CLV/PM** Displays how far the rotor has moved from its last position in PG pulses (multiplied by 4).	10 V: No. of pulses per revolution (-10 to +10 V)	1 pulse
U6-25 (006B)	Feedback Control Output	ASR Out w/o Fil	V/f V/f w PG OLV **CLV** OLV/PM AOLV/PM **CLV/PM** Output monitor for the ASR speed loop.	10 V: Motor secondary rated current (-10 to +10 V)	0.01%
U6-26 (006C)	Feed Forward Control Output	FF Cont Output	V/f V/f w PG OLV **CLV** OLV/PM AOLV/PM **CLV/PM** Output monitor for Feed Forward control.	10 V: Motor secondary rated current (-10 to +10 V)	0.01%
U6-57 (07C4)	Integrated Current Deviation during Judging Polarity	PoleDis IdDifVal	V/f V/f w PG OLV CLV OLV/PM **AOLV/PM** **CLV/PM** Displays the deviation from the integrated current when judging motor polarity. If this value is lower than 819, then increase the value set to n8-84. The value 8192 is equivalent to the motor rated current.	No signal output available	1
U6-80 to U6-83 (07B0 to 07B3) <2>	Online IP Address	–	**All Modes** IP Address currently available; U6-80 is the most significant octet.	0 to 255	–
U6-84 to U6-87 (07B4 to 07B7) <2>	Online Subnet	–	**All Modes** Subnet currently available; U6-84 is the most significant octet.	0 to 255	–
U6-88 to U6-91 (07B8 to 07F1) <2>	Online Gateway	–	**All Modes** Gateway currently available; U6-88 is the most significant octet.	0 to 255	–
U6-92 (07F2) <2>	Online Speed	OPT LINK SPEED	**All Modes** Link Speed	10: 10 Mbps 100: 100 Mbps	–
U6-93 (07F3) <2>	Online Duplex	OPT DUPLEX	**All Modes** Duplex Setting	0: Half 1: Full	–
U6-98 (07F8) <2>	First Fault	OPT FIRST FAULT	**All Modes** First Option Fault	–	–
U6-99 (07F9) <2>	Current Fault	OPT STATUS	**All Modes** Current Option Fault	–	–

<1> Values shown are specific to 200 V class drives. Double the values for 400 V class drives. Multiply the values by 2.875 for 600 V class drives.

<2> Available in drive software versions PRG: 1018 and later.

Note: Fault histories are not kept when CPF00, CPF01, CPF06, CPF24, oFA00, oFb00, oFC00, Uv1, Uv2, or Uv3 occur.

◆ U8: DriveWorksEZ Monitors

No. (Addr. Hex)	Name	LCD Display	Description	Analog Output Level	Unit
U8-01 to U8-10 (1950 to 1959)	DriveWorksEZ Custom Monitor 1 to 10	–	All Modes DriveWorksEZ Custom Monitor 1 to 10	10 V: 100%	0.01%
U8-11 to U8-13 (195A to 195C)	DriveWorksEZ Version Control Monitor 1 to 3	–	All Modes DriveWorksEZ Version Control Monitor 1 to 3	No signal output available	–
U8-14 to U8-26 (195D to 1969)	DriveWorksEZ Pro Monitors	–	All Modes DriveWorksEZ Pro Monitors. Refer to the DWEZ Pro Help file for details.	–	–