

11.6 Input Terminal Function

● Table of input terminal functions 1

Function No.	Code	Function	Action
0, 1	-	No function	Disabled
2	F	Forward run command	ON: Forward run, OFF: Slowdown stop
3	FN	Inversion of forward run command	Inversion of F
4	R	Reverse run command	ON: Reverse run, OFF: Slowdown stop
5	RN	Inversion of reverse run command	Inversion of R
6	ST	Standby	ON: Ready for operation, OFF: Coast stop (gate OFF)
7	STN	Inversion of standby	Inversion of ST
8	RES	Reset command	ON: Acceptance of reset command, ON → OFF: Trip reset
9	RESN	Inversion of reset command	Inversion of RES
10	SS1	Preset-speed command 1	Selection of 15-speed SS1 to SS4 (SS1N to SS4N) (4 bits)
11	SS1N	Inversion of preset-speed command 1	
12	SS2	Preset-speed command 2	
13	SS2N	Inversion of preset-speed command 2	
14	SS3	Preset-speed command 3	
15	SS3N	Inversion of preset-speed command 3	
16	SS4	Preset-speed command 4	ON: Jogging mode (fixed at 5Hz), OFF: Jog run canceled
17	SS4N	Inversion of preset-speed command 4	
18	JOG	Jog run mode	Inversion of JOG
19	JOGN	Inversion of jog run mode	ON: ξ trip stop
20	EXT	Emergency stop by external signal	Inversion of EXT
21	EXTN	Inversion of emergency stop by external signal	ON: DC braking, OFF: Brake canceled
22	DB	DC braking command	Inversion of DB
23	DBN	Inversion of DC braking command	ON: Acceleration/deceleration 2, OFF: Acceleration/deceleration 1
24	AD2	2nd acceleration/deceleration	Inversion of AD2
25	AD2N	Inversion of 2nd acceleration/deceleration	ON: 2nd V/F control mode (V/F fixed, $F170, F171, F172, F173$) OFF: 1st V/F control mode ($P\&E$ setting, $u\&L, u\&L, u\&b, FHR$)
28	VF2	2nd V/F control mode switching	Inversion of VF2
29	VF2N	Inversion of 2nd V/F control switching	ON: Enabled at the value of $F185$ OFF: Enabled at the value of $F601$
32	OCS2	2nd stall prevention level	Inversion of OCS2
33	OCS2N	Inversion of 2nd stall prevention level	ON: PID control prohibited OFF: PID control enabled
36	PID	PID control prohibition	Inversion of PID
37	PIDN	Inversion of PID control prohibition	Enabled during communication ON: Local (Setting of $[CND, FND]$) OFF: Communication
48	SCLC	Forced local from communication	Inversion of SCLC
49	SCLCN	Inversion of forced local from communication	ON: F (forward run), R: (reverse run) held, 3-wire operation OFF: Slowdown stop
50	HD	Operation hold (hold of 3-wire operation)	Inversion of HD
51	HDN	Inversion of operation hold (hold of 3-wire operation)	ON: Integral/differential clear, OFF: Clear canceled
52	IDC	PID integral/differential clear	Inversion of IDC
53	IDCN	Inversion of PID integral/differential clear	ON: Inverted characteristics of $F380$ selection OFF: Characteristics of $F380$ selection
54	DR	PID characteristics switching	Inversion of DR
55	DRN	Inversion of PID characteristics switching	

- Table of input terminal functions 2

Function No.	Code	Function	Action
88	UP	Frequency UP from external logic input	ON: Frequency increased, OFF: Frequency increase canceled
89	UPN	Inversion of frequency UP from external logic input	Inversion of UP
90	DWN	Frequency DOWN from external logic input	ON: Frequency decreased, OFF: Frequency decrease canceled
91	DWNN	Inversion of frequency DOWN from external logic input	Inversion of DWN
92	CLR	Clear frequency UP/DOWN from external logic input	OFF → ON: Clear frequency UP/DOWN
93	CLRn	Inversion of clear frequency UP/DOWN from external logic input	Inversion of CLR
96	FRR	Coast stop command	ON: Coast stop (gate OFF), OFF: Coast stop canceled
97	FRRN	Inversion of coast stop command	Inversion of FRP
106	FMTB	Frequency setting mode terminal board VI	ON: Terminal block (VI) enabled OFF: Setting of $F \overline{00}d$
107	FMTBN	Inversion of frequency setting mode terminal board VI block	Inversion of FMTB
108	CMTB	Command mode terminal board	ON: Terminal block enabled OFF: Setting of $\overline{c} \overline{00}d$
109	CMTBN	Inversion of command mode terminal board	Inversion of CMTB
110	PWE	Parameter editing permission	ON: Parameter editing enabled OFF: Setting of $F \overline{10}g$
111	PWEN	Inversion of parameter editing permission	Inversion of PWE
122	FST	Forced deceleration command	ON: Forced deceleration command (Automatic deceleration) OFF: Forced deceleration canceled (Note that operation is resumed when forced deceleration is canceled.)
123	FSTN	Inversion of forced deceleration command	Inversion of FST
200	PWP	Parameter editing prohibition	ON: Changes to parameter settings prohibited (read only) OFF: Setting of $F \overline{10}g$
201	PWPN	Inversion of parameter editing prohibition	Inversion of PWP

Note 1: Function numbers 26, 27, 30, 31, 34, 35, 38 to 47, 50, 51, 56 to 87, 94, 95, 98 to 105, 112 to 121 and 124 to 199 are "No function assigned."

Note 2: Function numbers are different from those on the VF-nC1. Pay attention to this when substituting function numbers.

11.7 Output Terminal Function

● Table of output terminal functions 1

Function No.	Code	Function	Action
0	LL	Frequency lower limit	ON: The output frequency exceeds the LL setting. OFF: The output frequency is equal to or less than LL .
1	LLN	Inversion of frequency lower limit	Inversion of LL .
2	UL	Frequency upper limit	ON: The output frequency is equal to or higher than the UL setting. OFF: The output frequency is less than UL .
3	ULN	Inversion of frequency upper limit	Inversion of UL .
4	LOW	Low-speed detection signal	ON: The output frequency is equal to or more than $F100$. OFF: The output frequency is less than $F100$.
5	LOWN	Inversion of low-speed detection signal	Inversion of LOW
6	RCH	Output frequency attainment signal (acceleration/deceleration completed)	ON: The output frequency is within command frequency $\pm F102$ setting. OFF: The output frequency exceeds the command frequency $\pm F102$ setting.
7	RCHN	Inversion of output frequency attainment signal (inversion of acceleration/deceleration completed)	Inversion of RCHF
8	RCHF	Set frequency attainment signal	ON: The output frequency is within the $F101 \pm F102$ setting. OFF: The output frequency exceeds the $F101 \pm F102$ setting.
9	RCHFN	Inversion of set frequency attainment signal	Inversion of RCHF
10	FL	Fault signal (trip output)	ON: Inverter tripped OFF: Inverter not tripped
11	FLN	Inversion of fault signal (inversion of trip output)	Inversion of FL
14	POC	Over-current pre-alarm	ON: The output current is equal to the $F601$ setting or more. OFF: The output current is less than $F601$.
15	POCN	Inversion of over-current pre-alarm	Inversion of POC
16	POL	Overload detection pre-alarm	ON: 50% or more of calculated value of overload protection level OFF: Less than 50% of calculated value of overload protection level
17	POLN	Inversion overload pre-alarm	Inversion of POL
20	POH	Overheat pre-alarm	ON: Approx. 95°C or more of IGBT element OFF: Less than approx. 95°C of IGBT element (90°C or less after detection is turned on)
21	POHN	Inversion of overheat pre-alarm	Inversion of POH
22	POP	Overvoltage pre-alarm	ON: Overvoltage limit in operation OFF: Overvoltage detection canceled
23	POPON	Inversion of overvoltage pre-alarm	Inversion of POP
24	MOFF	Power circuit undervoltage detection	ON: Power circuit undervoltage (MOFF) detected OFF: Undervoltage detection canceled
25	MOFFN	Inversion of power circuit undervoltage detection	Inversion of MOFF
26	UC	Small current detection	ON: The output current is equal to or less than $F511$ for $F512$ set time. OFF: The output current is equal to or more than $F511$. ($F511 + F509$ or larger after detection is turned on.)
27	UCN	Inversion of small current detection	Inversion of UC
28	OT	Over-torque detection	ON: The torque is equal to or more than $F515$ for $F518$ set time. OFF: The torque is less than $F515$. ($F515 - F519$ or less after detection turns on)
29	OTN	Inversion of over-torque detection	Inversion of OT

• Table of output terminal functions 2

Function No.	Code	Function	Action
40	RUN	Run	ON: While operation frequency is output or while DC braking is in operation (<i>d b</i>) OFF: Operation stopped
41	RUNN	Inversion of run/stop	Inversion of RUN
56	COT	Cumulative operation time alarm	ON: Cumulative operation time is equal to or more than $F 5 \bar{2} t$. OFF: The cumulative operation time is less than $F 5 \bar{2} t$.
57	COTN	Inversion of cumulative operation time alarm	Inversion of COT
60	FR	Forward/reverse run	ON: Forward run OFF: Reverse run (The previous status is held while motor operation is stopped.)
61	FRN	Inversion of forward/reverse run	Inversion of FR
78	COME	RS485 communication error	ON: Communication error occurred, OFF: Communication normal
79	COMEN	Inversion of RS485 communication error	Inversion of COME
92	DATA	Assigned data output	ON: Bit 0 of FA50 is ON. OFF: Bit 0 of FA50 is OFF.
93	DATAN	Inversion of assigned data output	Inversion of DATA
128	LTA	Parts replacement alarm	ON: The parts replacement time (any one of cooling fan, control board capacitor, or main circuit capacitor) has elapsed. OFF: The parts replacement time has not been reached.
129	LTAN	Inversion of parts replacement alarm	Inversion of LTA
146	FLR	Fault signal (output also at a retry)	ON: The inverter is tripped or a retry is in progress. OFF: The inverter is not tripped or a retry is not in progress.
147	FLRN	Inversion of fault signal (output also at a retry)	Inversion of FLR
254	AOFF	Always OFF	Always OFF
255	AON	Always ON	Always ON

Note 1: Even numbers are always OFF and odd numbers are always ON since function numbers 12, 13, 18, 19, 30 to 39, 42 to 55, 58, 59, 62 to 77, 80 to 91, 94 to 127, 130 to 145, and 148 to 253 are "No function assigned."

Note 2: Function numbers are different from those on the VF-nC1. Pay attention to this when substituting function numbers.