



T-VERTER

N2 SERIES



TALAN INVERTER

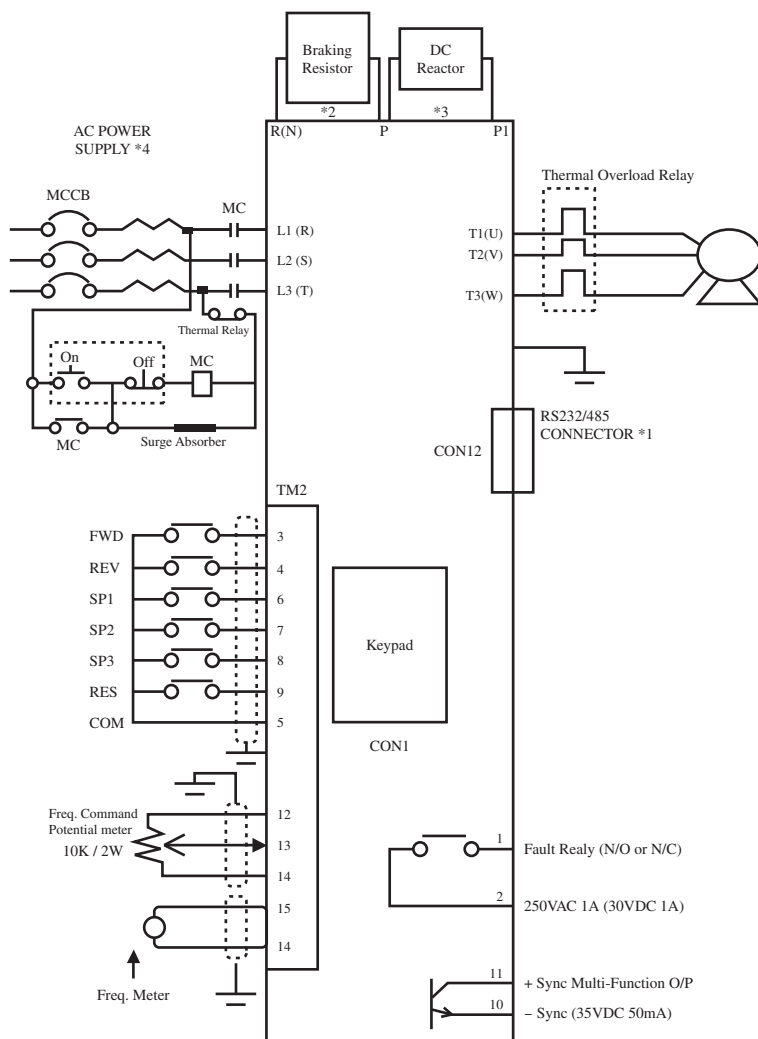


> >> T-verter

Feature

- IGBT
- Easy programming and operation
- High starting torque & low vibration PWM control
- Programmable V/F pattern
- Multifunction input & output
- Carrier frequency 1~12KHz adjustable
- Various analog signal input and output with bias and gain
- Programmable restart function
- RS232/RS485 communication
- International standards compliance UL, cUL, CE, C-Tick

Internal Connections



Notes :

- *1: Please use Jumper to short Pin 1 and Pin 2 of CON12 for N2 Series M type when CON12 is not used. In N2 Series H type the Jumper is needless.
- *2: (P,R) External Braking Resistor Terminals, for 1/2~10Hp used only.
(P, N) External Braking unit terminals. (P for positive, N for negative)
- *3: 15Hp~30Hp only.
- *4: For single applications connect power to L1 & L2.

Ordering numbers

N2	2	01	H	3	N4
Series	Input Voltage	Capacity	Specification	Phase of input power	Enclosure
	2 : 200V Class	P5 : 0.5Hp	M : Standard type	Blank : 1/3 phase	Blank : IP20
	4 : 400V Class	~	H : Advanced type	3 : 3 phase	N4 : IP65(NEMA4)
		30 : 30Hp			

Specifiication

1/3 Phase 200 ~ 240 Volts

N2-□□□ —xxx *1	2P5	201	202	203	205	208	210	215	220	230
Horse Power	1/2	1	2	3	5	7.5	10	15	20	30
Rated Motor KW	0.4	0.75	1.5	2.2	3.7	5.5	7.5	11	15	22
Reated Current (A)	3.1	4.5	7.5	10.5	17.5	26	35	49	64	87
Output (KVA)	1.2	1.7	2.9	4.0	6.7	9.9	13.3	18.7	24.4	33.2
Input Voltage Max.	(1/3 Phase) (200~240 Volts -15%~+10%) (50/60 Hz ± 5%) (5 h.p. & above 3 Phase Only)*1									
Output Voltage Max.	3 Phase 200 ~ 240 (proportional to input voltage)*1									
IP20 Weight (Kg)	1.4	1.4	2.5	4.0	4.0	6.8	7.1	12.3	12.5	13.8
Power Loss Ride Through (s)	1	1	2	2	2	2	2	2	2	2

3 Phase 380 ~ 480 Volts

N2-□□□ —xxx *1	401	402	403	405	408	410	415	420	430
Horse Power	1	2	3	5	7.5	10	15	20	30
Rated Motor KW	0.75	1.5	2.2	3.7	5.5	7.5	11	15	22
Reated Current (A)	2.3	3.8	5.2	8.8	13	17.5	25	32	48
Output (KVA)	1.7	2.9	4.0	6.7	9.9	13.3	19.1	24.4	36.6
Input Voltage Max.	(3 Phase 380 ~ 480 Volts -15%~+10%) (50/60 Hz ± 5%)*1								
Output Voltage Max.	3 Phase 380 ~ 480 Volts (proportional to input voltage)*1								
IP20 Weight (Kg)	2.4	2.5	3.8	4.0	7.0	7.3	12.3	12.5	13.5
Power Loss Ride Through (s)	1	1	2	2	2	2	2	2	2

Control Characteristics	Carrier Frequency		1 - 12K
	Frequency Control Range		0.1 - 400Hz
	Frequency Accuracy		Digital : 0.01% (-10 ~ 40℃) ; Analog : 0.4% (25 ± 10℃)
	Frequency Resolution		0.01Hz with computer or PLC control, 0.1Hz with keypad control when Freq. above 100Hz
	Frequency Setting Signal		(0 - 5 VDC) (0 - 10 VDC) (4 - 20mA) (0 - 20mA)
	Accel / Decel Time		Two stage acc/dec time (0.1 ~ 3600 sec) with two stage S-curves
	Braking Torque		About 20% (built-in Braking transistor)
	V/F Pattern		18 patterns, one curve programmable
Protection Function	Instantaneous Over Current		Approx. 200% rated current
	Overload		T-verter : 150% / 1 minute
	Motor Overload Protection		Electronic thermal overload relay
	Over Voltage		200V series : (DC bus exceeds 427V) 400v series : (DC bus exceeds 854V)
	Under Voltage		200V series : (DC bus drops < 200V) 400v series : (DC bus voltage drops < 400V)
	Momentary Power Loss		0 ~ 2 seconds : The T-verter can be restarted using the speed search feature
	Heat Sink Fin Overheat		Protected by thermister
	Ground Fault		Electronic circuit protection
Protection Function	Input Signal	Operation signals	Forward/Reverse oporation, by keypad or hardwire contact, multiple individual commands
		Reset	Released protection while the protective function is operating
		Multifunction Input	Refer to function illustration in Fn_56
	Output Signal	Multifunction Output	Refer to function illustration in Fn_61
		Fault output	250 VAC 1A, 30 VDC 1A or less
	Built-in Function		Frequency reference bias/gain ; up/lower limit ; manual torque boost ; frequency meter calibrating gain ; auto restart attempt ; skip frequency ; S-curve ACCEL/DECEL ; Carrier frequency adjust.(1 - 12KHz); Communication link function
	Digital Operator Monitor		Frequency command, output frequency, speed, output current, output voltage, P-N bus voltage, rotating direction
	Analog Output Monitor		Analog output (0 - 10V), possible to select output frequency & setting freq.& output voltage & P-N bus voltage
Environ-mental	Location		Indoor (protected from corrosive gas and dust)
	Ambient Temperature		-10 degrees ~ 40 degrees © 50 degrees with cover removed
	Humidity		0 - 95% (noncondensing)
	Vibration		0.5G
Enclosure			IP20 / IP65 (NEMA4)
EMC			EN50081-1, EN50082-2 (with optional filter)
LVD			EN50178
UL			UL 508C

Notes :

N2-205 and above capacity are not CE complied, (IP65) NEMA4 enclosure type only available for 0.5 ~ 10HP & below

*1 : For H type, the input/output voltage range is 200 ~ 240V (200V class), 380 ~ 480V(400V class), -15%~+10%

Inverter Dimension & Weight

N2-200V IP20 Model

Horse Power	1/2	1	2	3	5	7.5	10	15	20	30
Weight (Kg)	1.4	1.4	2.5	4.0	4.0	6.8	7.1	12.3	12.5	13.8
Dimensions W*H*D (mm)	107x162x135.5		149x184x152.7	185x215x162.7		200x300x199		250x400x240		
Mounting Dimension W1*H1 (mm)	96x150		138x174	174x205		186x286		236x385		

N2-400V IP20 Model

Horse Power	1	2	3	5	7.5	10	15	20	30
Weight (Kg)	2.5	2.5	3.8	4.0	7.0	7.3	12.3	12.5	13.5
Dimensions W*H*D (mm)	149x184x152.7		185x215x162.7	200x300x199		250x400x240			
Mounting Dimension W1*H1 (mm)	138x174		174x205	186x286		236x385			

N2-200V IP65/NEMA4 Model

Horse Power	1/2	1	2	3	5	7.5	10
Weight (Kg)	6.8	6.8	6.8	7.3	7.3	17.3	17.3
Dimensions W*H*D (mm)	200x240x143		230x300x211.5			313x430x269	
Mounting Dimension W1*H1 (mm)	180x225		210x275			258x415	

N2-400V IP65/NEMA4 Model

Horse Power	1	2	3	5	7.5	10
Weight (Kg)	6.8	6.8	7.3	7.3	17.3	17.3
Dimensions W*H*D (mm)	230x300x211.5				313x430x269	
Mounting Dimension W1*H1 (mm)	210x275				258x415	

Peripherals

EMI Filter

Model	Rated	Inverter	Dimension (mm)					Weight (Kg)
			W	H	D	W1	H1	
B9810140	1 Φ 220~250V/10A	N2-2P5/201	114	200	35	96	183	1.7
B9812047	1 Φ 220~250V/20A	N2-202	159	228	55	138	208	2.0
B9812048	1 Φ 220~250V/20A	N2-203	195	265	55	174	245	2.4
B9810102	3 Φ 380~460V/10A	N2-401/402	159	228	55	138	210	2.4
B9810103	3 Φ 380~460V/10A	N2-403/405	195	265	55	174	245	2.4
B9901153	3 Φ 380~460V/20A	N2-408/410	210	360	70	186	335	3.8
B9901154	3 Φ 380~460V/48A	N2-415~430	260	460	70	236	435	6.0

Extension Cable

Extension Cable Models	Digital Operator Models	Inverter Models
NW-30P5 (0.5m)	NDOP-01	N2-2P5~N2-205 N2-401~N2-405
NW-3001 (1m)		
NW-3002 (2m)		
NW-3003 (3m)		
NW-3005 (5m)		
NW-3001A (1m)	NDOP-02	N2-208~N2-230 N2-408~N2-430
NW-3002A (2m)		
NW-3003A (3m)		
NW-3005A (5m)		

Braking Resistor

Resistor Model	Inverter Capacity	Specifications of brake resistor		Brake resistor ED(%)	Brake torque (%)
		(W)	(Ω)		
BRN2-201	N2-2P5-H	60	200	8	218
BRN2-201	N2-201-H	60	200	8	119
BRN2-202	N2-202-H	150	100	10	119
BRN2-203	N2-203-H	200	70	9	116
BRN2-205	N2-205-H3	300	40	8	119
BRN2-208	N2-208-H3	500	25	8	125
BRN2-210	N2-210-H3	600	20	8	119
BRN2-401	N2-401-H3	60	750	8	125
BRN2-402	N2-402-H3	150	400	10	119
BRN2-403	N2-403-H3	200	250	8	128
BRN2-405	N2-405-H3	300	150	8	127
BRN2-408	N2-408-H3	500	100	8	125
BRN2-410	N2-410-H3	600	80	8	119

Braking Unit

Voltage	Max applicable motor capacity	Braking unit	Q'ty	Braking resistor Specification	Q'ty	Min Ohm value	Approx. braking torque (10%ED)
220V	15HP	TBU-230	1	2400W 13.6Ω	1	6.4Ω	115%
	20HP	TBU-230	1	3000W 10Ω	1	6.4Ω	115%
	30HP	TBU-230	1	4800W 6.8Ω	1	6.4Ω	115%
440V	15HP	TBU-230	1	1200W 50Ω	1	19.2Ω	125%
	20HP	TBU-430	1	2000W 40Ω	1	19.2Ω	115%
	30HP	TBU-430	1	4800W 27.2Ω	1	19.2Ω	115%

Communication Kits - RS-232-N2

Communication Kits - RS-485-N2

The information in this brochure is subject to change without notice.

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