

TOSHIBA

TYPE TE MOTOR CONTROL CENTER

Inverter Panel



With High-Performance Inverter VF-AS3J Motor Control Center

Features

- Maximum number of units piled-up: 8 units*¹
- Drawable type*² with a circuit breaker interlocking system, preventing unintentional contact to the busbar.
- The high-performance inverter TOSVERT™ VS-AS3J is mounted.
 - Features of VF-AS3J inverter
 - New dial settings
 - Noise filter is built in the following models:
200V class : 0.4 to 7.5 kW
400V class : 0.75 to 75 kW
 - Excellent motor control performance
Both stable powering and regeneration control is realized.
The auto-tuning allows for easy setting.
 - DC reactor is built in the following models:
200V class : 11 to 45 kW
400V class : 18.5 to 75 kW
- Having the same dimensions as the TE-type control center M and G series, enabling easy installation of TE-type control center side by side and perfect ventilation.
- The transmission equipment (CC-LINK*³, PROFIBUS-DP*⁴) make a network with the monitoring control device.

Related catalog

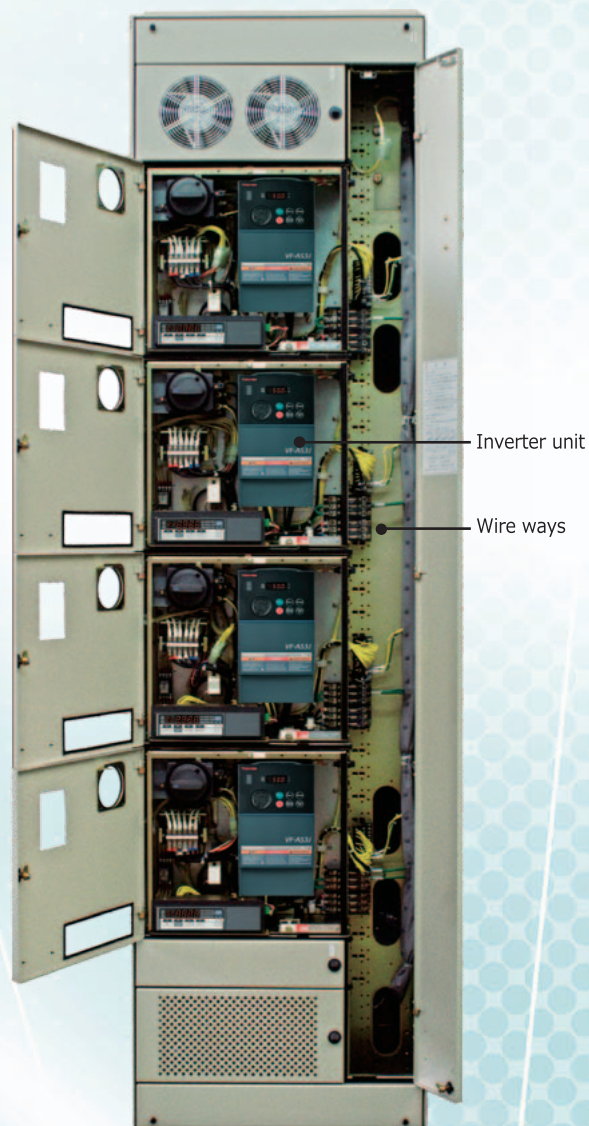
TYPE TE MOTOR CONTROL CENTER M series and G series	CKTE-1303
High-performance inverter TOSVERT VF-AS3J (Japanese)	CKVJ-1371



Ratings

Items		Standard rated values
Applicable standards		JEM1195
Rated insulation voltage		600 V AC
Rated operating voltages	Main circuits	200, 220, 400, 440 V AC
	Auxiliary circuits	100, 110, 200, 220 V AC
Rated frequency		50, 60 Hz
Rated busbar current	Horizontal busbar	800, 1200, 1600, 2000, 3150 A
	Vertical busbar	400, 600 A
Rated short time withstand current		30, 50, 70 kA - 0.5 sec 30, 50 kA - 1 sec
Dielectric voltage at commercial frequency	Main circuits	2200 V / 1 min
	Auxiliary circuits	1500 V / 1 min
Rated breaking capacity		30, 50, 70 kA (at 440 V)

Note: Inverter panel in compliance with IEC standards, please consult with us.



Inverter-incorporated motor control center

- *1 In case that panel type is double-front and the units are 3.7kW or less.
- *2 Only for 400V-75kW / 200V-45kW unit or less.
In case of large units (400V-11 to 75kW / 200V-7.5 to 45kW) only the circuit breaker unit is drawable type.
- *3 CC-Link is a registered trademark of Mitsubishi Electric Corporation.
- *4 PROFIBUS-DP is registered trademarks of PROFIBUS and PROFINET International.

Unit selection table

● M series (with incorporated motor multi-relay)

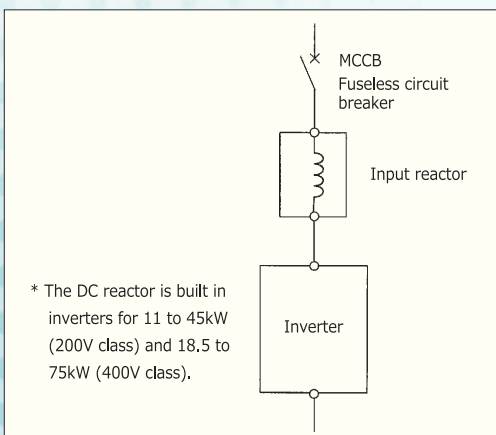
400V class				200V class				Maximum applicable cable size (mm ²)	
Applied motor capacity (kW)	Unit type		Panel size (mm)	Applied motor capacity (kW)	Unit type		Panel size (mm)	B method	C method
	General	With earth fault protection			General	With earth fault protection			
0.75	IN 4- 18M	IL 4- 18M	600W×550D (Single front or Double front)	0.4	IN 4- 11M	IL 4- 11M	600W×550D (Single front or Double front)	14	14
1.1/1.5	IN 4- 31M	IL 4- 31M		0.75	IN 4- 18M	IL 4- 18M			
2.2	IN 4- 44M	IL 4- 44M		1.1/1.5	IN 4- 30M	IL 4- 30M			
3.7	IN 4- 80M	IL 4- 80M		2.2	IN 4- 42M	IL 4- 42M			
5.5	IN 6- 110M	IL 6- 110M		—	—	—			
7.5	IN 6- 130M	IL 6- 130M		3.7	IN 4- 67M	IL 4- 67M			
11	IN 11- 210M	IL 11- 210M		5.5	IN 6- 100M	IL 6- 100M			
15	IN 11- 250M	IL 11- 250M		7.5	IN 8- 130M	IL 8- 130M			
18.5	IN 11- 310M	IL 11- 310M		—	—	—			
22	IN 11- 370M	IL 11- 370M		11	IN 11- 210M	IL 11- 210M			
30	IN 16- 500M	IL 16- 500M	600W×550D (Single front type only)	15	IN 12- 250M	IL 12- 250M	600W×550D (Single front type only)	38	22
37	IN 19- 600M	IL 19- 600M		18.5	IN 12- 290M	IL 12- 290M			
45	IN 19- 720M	IL 19- 720M		22	IN 13- 340M	IL 13- 340M			
55	IN 19- 880M	IL 19- 880M		30	IN 19- 460M	IL 19- 460M			
75	IN 19- 1220M	IL 19- 1220M		37	IN 19- 550M	IL 19- 550M			
90	IN 21- 1360M	IL 21- 1360M		45	IN 21- 670M	IL 21- 670M			
110	IN 21- 1640M	IL 21- 1640M		55	IN 21- 840M	IL 21- 840M		80	100
132	IN 21- 1970M	IL 21- 1970M		75	IN 21- 1090M	IL 21- 1090M			
160	IN 21- 2390M	IL 21- 2390M		—	—	—			
200	IN 21- 2950M	IL 21- 2950M		90	IN 21- 1330M	IL 21- 1330M			
			1800W×800D (consist of 2 panels)				1600W×800D (consist of 2 panels)		

● G series (with incorporated thermal-relay)

400V class				200V class				Maximum applicable cable size (mm ²)	
Applied motor capacity (kW)	Unit type		Panel size (mm)	Applied motor capacity (kW)	Unit type		Panel size (mm)	B method	C method
	General	With earth fault protection			General	With earth fault protection			
0.75	IN 4- 18	IL 6- 18	600W×550D (Single front or Double front)	0.4	IN 4- 11	IL 6- 11	600W×550D (Single front or Double front)	14	14
1.1/1.5	IN 4- 31	IL 6- 31		—	—	—			
2.2	IN 4- 44	IL 6- 44		0.75	IN 4- 18	IL 6- 18			
3.7	IN 4- 80	IL 6- 80		1.1/1.5	IN 4- 30	IL 6- 30			
5.5	IN 6- 110	IL 6- 110		2.2	IN 4- 42	IL 6- 42			
7.5	IN 6- 130	IL 6- 130		3.7	IN 4- 67	IL 6- 67			
11	IN 10- 210	IL 10- 210		5.5	IN 6- 100	IL 6- 100			
15	IN 10- 250	IL 10- 250		7.5	IN 8- 130	IL 8- 130			
18.5	IN 11- 310	IL 11- 310		—	—	—			
22	IN 11- 370	IL 11- 370		11	IN 11- 210	IL 11- 210			
30	IN 15- 500	IL 15- 500	600W×550D (Single front type only)	15	IN 12- 250	IL 12- 250	600W×550D (Single front type only)	38	38
37	IN 19- 600	IL 19- 600		18.5	IN 12- 290	IL 12- 290			
45	IN 19- 720	IL 19- 720		22	IN 13- 340	IL 13- 340			
55	IN 19- 880	IL 19- 880		30	IN 19- 460	IL 19- 460			
75	IN 19- 1220	IL 19- 1220		37	IN 19- 550	IL 19- 550		80	100
90	IN 21- 1360	IL 21- 1360		45	IN 21- 670	IL 21- 670			
110	IN 21- 1640	IL 21- 1640		55	IN 21- 840	IL 21- 840			
132	IN 21- 1970	IL 21- 1970		75	IN 21- 1090	IL 21- 1090			
160	IN 21- 2390	IL 21- 2390		—	—	—			
200	IN 21- 2950	IL 21- 2950		90	IN 21- 1330	IL 21- 1330			
			1800W×800D (consist of 2 panels)				1600W×800D (consist of 2 panels)		

Note: The input reactor is installed in the unit as default. Please contact us for the installation of other optional accessories as it requires a change in the unit size. VF-AS1/PS1 is used for the 55kW and over (200V class) or 90kW and over (400V class) units as they are still under development.

Single line diagram



Types

■ Unit type

IN4-20 M

Unit styles	IN : Inverter incorporated (Without earth fault protection) IL : Inverter incorporated (With earth fault protection)
Unit heights	4 : 400 mm 6 : 600 mm ?
Inverter capacity	20 : 2 kVA 30 : 3 kVA ?
Protection method	M : Motor multi-relay incorporated (M series) T : Motor multi-relay (with transmission equipment) incorporated (M series) □ : Thermal relay incorporated (G series)



Notes on safety

- Before installation, connection, operation, or maintenance, the catalog, manual, documents attached to the products must be read with great care.
- The customer must be acquainted with the performance and principle of equipment and laws relevant to electrical equipment and work.

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The contents of this catalog are subject to change without prior notice.

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