

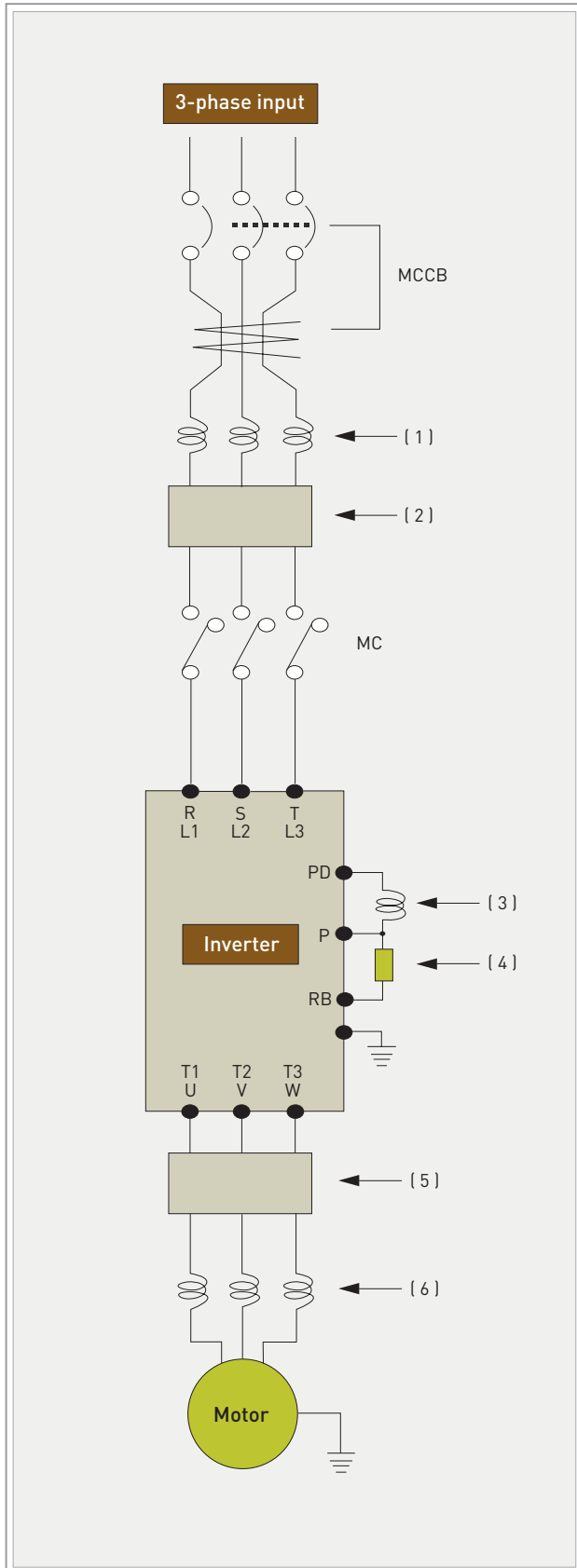
## Wiring and Options

### Common Applicable Tools

Class	Motor Output (kW)	Inverter Model	Power Cable (mm <sup>2</sup> ) R,S,T,U,V,W,PD,P	External Resistor between P and RB (mm <sup>2</sup> )	Screw Size of Terminal	Torque (N·m)	Applicable Tools		
							Circuit Breaker (MCCB)	Magnetic Contactor (MC)	
200V Class	0.4	N700E-004SF	More than 1.25	-	M3	0.5	UAB30C	5A	HiMC10W
	0.4	N700E-004LF	More than 1.25	-	M3	0.5	UAB30C	5A	HiMC10W
	0.75	N700E-007SF	More than 1.25	-	M3	0.5	UAB30C	10A	HiMC10W
	0.75	N700E-007LF	More than 1.25	-	M3	0.5	UAB30C	10A	HiMC10W
	1.5	N700E-015SF	More than 2	-	M4	1.2	UAB30C	15A	HiMC10W
	1.5	N700E-015LF	More than 2	-	M3	0.5	UAB30C	15A	HiMC10W
	2.2	N700E-022SF	More than 2	-	M4	1.2	UAB30C	20A	HiMC20W
	2.2	N700E-022LF	More than 2	-	M4	1.2	UAB30C	20A	HiMC20W
	3.7	N700E-037LF	More than 3.5	-	M4	1.2	UAB30C	30A	HiMC20W
	5.5	N700E-055LF	More than 6	6	M4	1.2	UCB100R	50A	HiMC32
	7.5	N700E-075LF	More than 10	6	M4	1.2	UCB100R	50A	HiMC32
	11	N700E-110LF	More than 16	6	M5	3.0	UCB100R	75A	HiMC50
	15	N700E-150LF	More than 25	16	M5	3.0	UCB100R	100A	HiMC65
	18.5	N700E-185LF	More than 30	16	M6	4.5	UCB250S	150A	HiMC80
	22	N700E-220LF	More than 35	16	M6	4.5	UCB250S	150A	HiMC110
400V Class	0.4	N700E-004HF	More than 1.25	-	M4	1.2	UAB30C	5A	HiMC10W
	0.75	N700E-007HF	More than 1.25	-	M4	1.2	UAB30C	5A	HiMC10W
	1.5	N700E-015HF	More than 1.25	-	M4	1.2	UAB30C	10A	HiMC10W
	2.2	N700E-022HF	More than 1.25	-	M4	1.2	UAB30C	10A	HiMC10W
	3.7	N700E-037HF	More than 2	-	M4	1.2	UAB30C	15A	HiMC20W
	5.5	N700E-055HF	More than 4	4	M4	1.2	UAB30C	30A	HiMC18
	7.5	N700E-075HF	More than 4	4	M4	1.2	UAB30C	30A	HiMC18
	11	N700E-110HF	More than 6	6	M4	1.2	UCB100R	50A	HiMC32
	15	N700E-150HF	More than 10	10	M5	3.0	UCB100R	50A	HiMC40
	18.5	N700E-185HF	More than 16	10	M5	3.0	UCB100R	75A	HiMC40
	22	N700E-220HF	More than 25	10	M5	3.0	UCB100R	75A	HiMC50
	30	N700E-300HF	More than 25	-	M6	4.5	UCB100R	100A	HiMC65
	37	N700E-370HF	More than 35	-	M6	4.5	UCB250S	100A	HiMC80
	45	N700E-450HF	More than 35	-	M8	6.0	UCB250S	150A	HiMC110
	55	N700E-550HF	More than 70	-	M8	6.0	UCB250S	175A	HiMC130
	75	N700E-750HF	More than 35 x 2	-	M8	6.0	UCB400S	250A	HiMC180
	90	N700E-900HF	More than 35 x 2	-	M8	6.0	UCB400S	250A	HiMC220
	110	N700E-1100HF	More than 50 x 2	-	M10	10.0	UCB400S	350A	HiMC260
	132	N700E-1320HF	More than 80 x 2	-	M10	10.0	UCB400S	350A	HiMC300
160	N700E-1600HF	More than 0 x 2	-	M13	12	UCB800S	700A	HiMC400	
220	N700E-2200HF	More than 100 x 2	-	M13	12	UCB800S	800A	HiMC500	
280	N700E-2800HF	More than 150 x 2	-	M13	12	UCB1000S	1000A	HiMC630	
350	N700E-3500HF	More than 200 x 2	-	M13	12	UCB1250S	1250A	HiMC800	

※ Use 600V, 75°C copper wire.

## Wiring and Options



Correct selection of peripherals is required in order to normal operation of inverter

- In case of an invalid system configuration and connection, it affect an abnormal operation or reduction in product life. In the worst case, there is a risk of burn out the inverter.
- The sensitivity of circuit breaker (MCCB) should be differentiated by the sums of wiring distances (inverter-power supply and inverter-motor).

Wiring Distance	Sensitive Current(mA)
Under 100m	50
Under 300m	100
Under 600m	200

※ - IV line has high non-dielectric constant : current increases 8 times.

When wiring distance is over 100m, use CV line.

- ON / OFF operation is prohibited at the output side by using electromagnetic contactor. When it is necessary to apply electromagnetic contactor at the output side by using bypass circuit, ON / OFF should be applied while inverter is in normal operation.

Order	Function Name	Description
(1)	Input-side AC Reactor	As a measure of suppressing harmonics induced on the power supply lines, it is applied when imbalance of the main power voltage exceeds 3% (and power source capacity is more than 500kVA), or when the power voltage is rapidly changed. It also improves the power factor.
(2)	Input-side Noise Filter	This reduces common noise that is generated between input power and ground. Connect this filter to 1st side (input side) of inverter.
(3)	DC Reactor	Suppresses harmonics generated by the inverter
(4)	Regenerative Braking Unit	This will increase braking performance when inverter have high brake torque (or load have big inertial) or inverter operate frequently ON / OFF).
(5)	Output-side Noise Filter	This reduces radiated noise from wiring in the inverter output side. This also reduces wave fault to radio and TV, and it is used for preventing malfunction of sensor and measuring instruments.
(6)	Output-side AC Reactor	This reactor reduces the vibration in the motor caused by the inverter's switching waveforms, by smoothing the waveforms to approximate commercial power quality. When wiring from the inverter to the motor is more than 10m in length, inserting a reactor prevents thermal relay's malfunction by harmonic generated by inverter's high switching.