



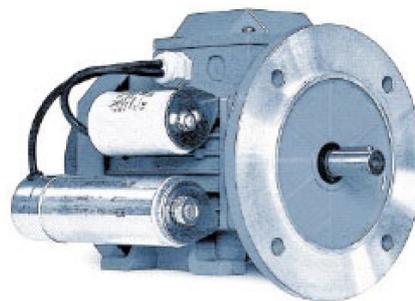
Présentation:

Proposer un schéma de câblage pour le moteur monophasé. (Puissance et commande), câbler en fils volants.

On veut deux sens de rotation, pilotés par KM1 & KM2.

S1 arrêt, S2 marche avant, S3 marche arrière, voyant sous tension et voyant défaut.

A partir de la plaque signalétique, compléter le tableau :



référence		courant	
puissance		vitesse	
tension		Cos φ	

Proposer une référence de relais thermique :

Donner la signification de la référence : M3 VD 71B-4

Starting and run capacitor

Single phase motor with attached run capacitor, starting capacitor and electronic start relay mounted in the terminal box.

The electronic start relay connects the starting capacitor instantly when the motor starts, and cuts out when the motor has reached its break-down torque. The connection time is limited to max. 2 sec., after which the starting capacitor is disconnected, regardless of whether the motor has reached its breakdown torque. The starter relay cannot reconnect until the mains voltage to the motor has been disconnected; this protects the starting capacitor and ensures that the motor can be protected with a thermal motor line circuit breaker.

The CSR motor with a starting torque of 140 - 160% is suitable for applications that require a high starting torque, such as compressors, hydraulic pumps that start with back pressure and centrifugal pumps where the shaft seal requires a high breakaway torque.

Démarrage et condensateur

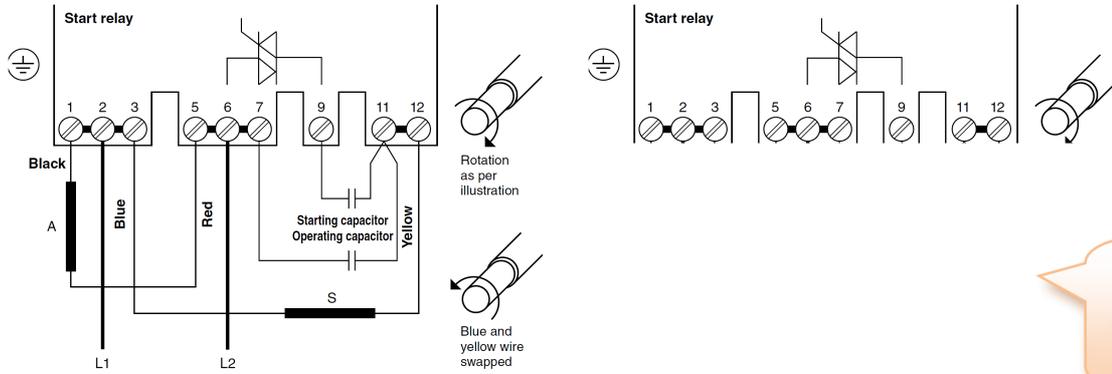
Moteur monophasé avec condensateur de démarrage, à partir de condensateurs et de relais électroniques start monté dans la boîte à bornes.

Le relais électronique insère le condensateur de départ instantanément lorsque le moteur démarre, et déconnecte le condensateur lorsque le moteur a atteint sa répartition du couple. Le temps de connexion est limité à max. 2 secondes. Après quoi le condensateur est déconnecté, sans savoir si le moteur a atteint sa rupture de couple. Le relais de démarrage ne peut pas se reconnecter tant que le moteur est resté sous tension, ce qui protège le condensateur de départ et garantit que le moteur peut être protégé par un relais thermique.

La CSR à moteur avec un couple de démarrage de 140 - 160% est idéal pour les applications qui requièrent un haut couple de démarrage, comme les compresseurs, les pompes hydrauliques qui commencent par la contre-pression et des pompes centrifuges, où l'arbre a besoin d'un joint de rupture de couple élevé.

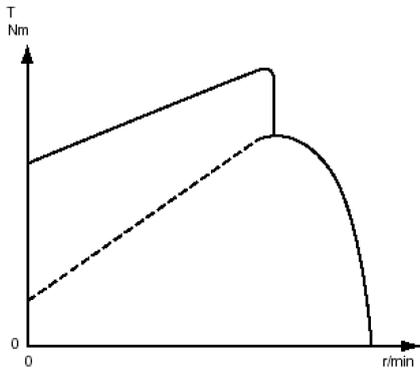


Analyse du bornier de raccordement



CSR model with electronic start relay.

Représenter ici le principe de câblage en marche arrière



Torque curve for CSR motor.

Platine de raccordement :

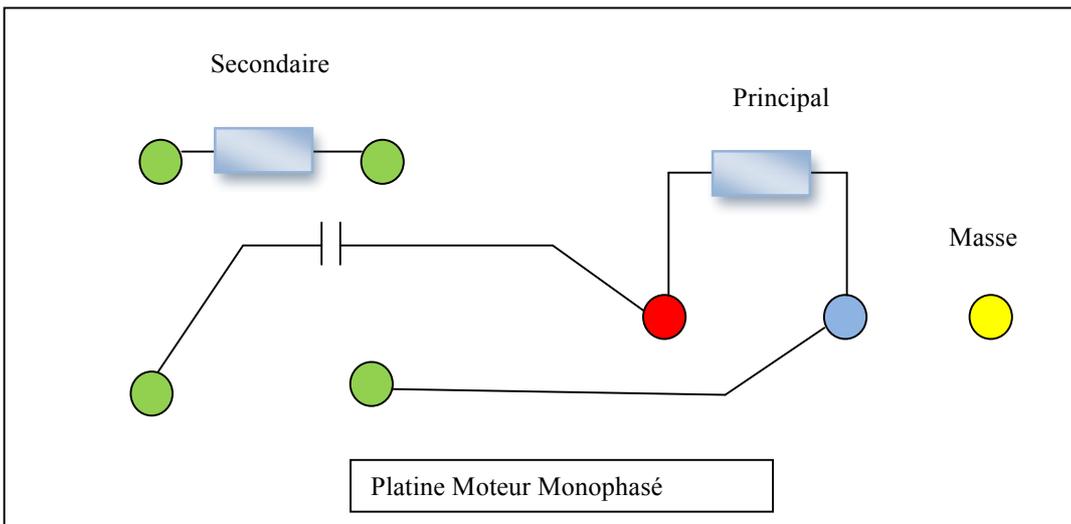
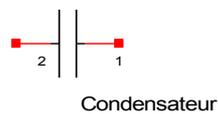
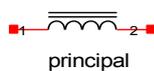
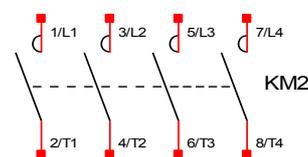
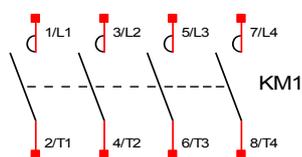
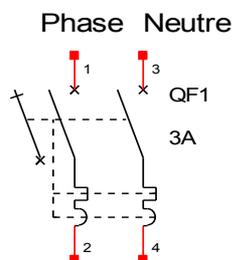




Schéma de câblage





Ordering information

Sample order

When placing an order, please state the following minimum data in the order, as in the example.

The product code of the motor is composed in accordance with the following example.

Motor type	M3VD 80C
Pole number	2
Mounting arrangement (IM-code)	IM B3 (IM 1001)
Rated output	1.4 kW
Product code	3GVD 081003-ASB
Variant codes if needed	

A	B	C	D, E, F, G	A Motor type
M3VD	80 C	3GVD 081 003 -	ASB, 122, 053, etc.	B Motor size
		1 2 3 4 5-6 7 8-10 11 12 13 14...		C Product code
				D Mounting arrangement code
				E Voltage/frequency code
				F Generation code
				G Variant codes

Explanation of the product code

Positions 1 and 2

3G = Business area LV Motors

Position 3 and 4

Enclosure and stator frame material

A, V = Totally enclosed motor with aluminium stator frame

Position 4

Motor type

D = Single-phase motor - CSR

E = Single-phase motor - PSC

Positions 5 and 6

IEC size

05 = 56

06 = 63

07 = 71

08 = 80

09 = 90

10 = 100

Position 7

Speed (pole pairs)

1 = 2 poles

2 = 4 poles

3 = 6 poles

Positions 8 to 10

Serial number

Position 11

- (dash)

Position 12

Mounting arrangement

A = Foot-mounted motor.

B = Flange-mounted motor.

Large flange with clearance holes.

C = Flange-mounted motor.

Small flange with threaded holes.

H = Foot- and flange-mounted motor.

Large flange with clearance holes.

J = Foot- and flange-mounted motor.

Small flange with threaded holes.

N = Flange-mounted (CI ring flange FF).

P = Foot- and flange-mounted motor.

(CI ring flange FF).

V = Flange-mounted motor. Special flange.

Position 13

Voltage/frequency code

S = 230-240 V 50 Hz.

X = Other rated voltage, connection or frequency.

Position 14

B, E = Generation code

The product code must be, if needed, followed by variant codes.



General purpose single phase motors

CSR motors, starting torque approx. 140-160 %

IP 55 – IC 411 – Insulation class F, temperature rise class B

Output kW	Type designation	Product code	Speed r/min	Efficiency %	Power factor cos φ	Current		Torque			Capacitor		Moment of inertia J=1/4 GD ² kgm ²	Weight kg
						I _N A	I _s A	T _N Nm	T _s Nm	T _{max} Nm	Start μF	Run μF		
3000 r/min = 2 poles														
230 V 50 Hz														
0.18	M3VD 63 A	3GVD 061 001-••B	2820	56.5	0.92	1.6	3.3	0.61	2.0	2.0	16	8	0.000160	5
0.25	M3VD 63 B	3GVD 061 002-••B	2820	60.5	0.94	1.95	3.6	0.85	2.0	2.1	20	10	0.000360	5.5
0.37	M3VD 71 A	3GVD 071 001-••B	2855	71.5	0.99	2.3	4.8	1.25	1.7	1.8	40	10	0.000400	6
0.55	M3VD 71 B	3GVD 071 002-••B	2860	72.5	0.99	3.4	4.8	1.85	1.7	1.8	60	16	0.000450	7
0.75	M3VD 71 C	3GVD 071 003-••B	2860	74.5	0.99	4.4	4.9	2.5	1.7	1.8	60	20	0.000500	7.5
0.75	M3VD 80 A	3GVD 081 001-••B	2860	73.0	0.99	4.4	4.6	2.0	1.8	2.2	80	20	0.000722	9.5
1.10	M3VD 80 B	3GVD 081 002-••B	2860	74.5	0.99	6.5	4.6	3.7	1.7	2.1	100	25	0.000763	11.5
1.4 ¹⁾	M3VD 80 C	3GVD 081 003-••B	2860	75.5	0.99	8.2	4.8	4.7	1.7	2.0	100	30	0.001093	12
1.5	M3AD 90 L	3GAD 091 202-••E	2910	80.0	0.99	8.2	4.6	5.0	1.4	1.9	130	40	0.00190	13
2.2	M3AD 90 LB	3GAD 091 203-••E	2910	81.5	0.99	11.8	4.2	7.3	1.1	1.8	130	50	0.00240	16
1500 r/min = 4 poles														
230 V 50 Hz														
0.12	M3VD 63 A	3GVD 062 001-••B	1350	49.5	0.95	1.2	3.0	0.85	1.6	1.5	16	4	0.000260	5
0.18	M3VD 63 B	3GVD 062 002-••B	1360	55.0	0.97	1.5	3.0	1.25	1.6	1.5	20	6	0.000300	5.5
0.25	M3VD 71 A	3GVD 072 001-••B	1410	64.0	0.99	1.75	4.3	1.7	1.7	1.6	40	6	0.000660	6
0.37	M3VD 71 B	3GVD 072 002-••B	1410	67.5	0.98	2.45	4.5	2.5	1.7	1.6	60	8	0.000890	7
0.5	M3VD 71 C	3GVD 072 003-••B	1410	68.5	0.98	3.2	4.5	3.4	1.7	1.6	60	12	0.001100	7.5
0.55	M3VD 80 A	3GVD 082 001-••B	1410	70.5	0.93	3.7	4.0	3.7	1.9	1.8	60	16	0.001257	9.5
0.75	M3VD 80 B	3GVD 082 002-••B	1410	72.0	0.93	4.9	4.1	5.1	2.0	1.8	80	20	0.001565	11
0.95	M3VD 80 C	3GVD 082 003-••B	1410	73.0	0.93	6.1	4.1	6.1	1.8	1.8	80	16	0.001948	11.5
1.1	M3AD 90 S	3GAD 092 201-••E	1420	76.0	0.99	6.3	4.0	7.35	1.6	1.5	100	30	0.00320	13
1.5	M3AD 90 L	3GAD 092 202-••E	1430	79.5	0.99	8.3	4.3	10.0	1.9	1.7	130	40	0.00430	16
1.7	M3AD 90 LB	3GAD 092 203-••E	1430	79.5	0.99	9.4	3.4	11.5	1.3	1.6	130	60	0.00480	17
1.85	M3AD 100 LA	3GAD 102 201-••E	1390	76.5	0.99	10.6	3.0	12.7	1.3	1.4	100	50	0.00690	21
2.2	M3AD 100 LB	3GAD 102 202-••E	1400	79.5	0.99	12	3.2	15	1.2	1.5	80	50	0.00820	24
1000 r/min = 6 poles														
230 V 50 Hz														
0.18	M3VD 71 A	3GVD 073 001-••B	880	52.0	0.99	1.5	2.8	1.95	1.5	1.3	20	10	0.000630	6
0.25	M3VD 71 B	3GVD 073 002-••B	880	59.0	0.99	1.9	3.0	2.7	1.5	1.3	40	12	0.000810	7
0.32	M3VD 71 C	3GVD 073 003-••B	880	61.0	0.99	2.3	3.0	3.5	1.5	1.3	40	16	0.001100	7.5
0.37	M3VD 80 A	3GVD 083 001-••B	900	65.0	0.97	2.6	3.0	3.9	1.8	1.5	40	12	0.001842	9.5
0.55	M3VD 80 B	3GVD 083 002-••B	900	66.0	0.97	3.8	3.1	5.8	1.8	1.5	40	20	0.002176	10.5
0.65 ¹⁾	M3VD 80 C	3GVD 083 003-••B	900	67.5	0.97	4.3	3.2	6.9	1.8	1.5	60	25	0.002576	11.5
0.85	M3AD 90 L	3GAD 093 202-••E	930	71.0	0.96	5.4	3.9	8.65	1.7	1.4	80	25	0.00430	16

¹⁾ Temperature rise class F.

The bullets in the product code indicate choice of mounting arrangement, voltage and frequency, generation code (see ordering information page).