The plug-in motor for connectivity

Frames 63 to 180L

9717E

BROOK CROMPTON

The plug-in motor for connectivity

Plug-in motors provide a simple, quick and effective electrical connection method to; install, replace, maintain or clean equipment with rapid re-connection.

Plug and socket systems are widely used throughout process (car plants, food or pharmaceutical) industries where multi-skilled staff are able to install or replace equipment or motors with as little time delay as possible. Removal of equipment may be for routine cleaning or maintenance. Other types of industry may also benefit from this method of connection where the rapid removal or replacement of a motor is essential, due to the nature of the operating environment.

Brook Crompton has developed a simple and effective plug and socket system in conjunction with a leading manufacturer of connectors. Motor connection is via a male housing (plug) attached to the motor frame, which is connected to its mains supply via a matching hood (female socket).

Technical characteristics

The insert used within the housing (attached to the motor frame) and hood are manufactured to the following specifications and standards:

Specifications

- VDE 0110 table 4, concerning clearance and creepage distances
- VDE 0627 – connectors

Standards

- DIN 43 652
- CECC 75 301-801

Inserts, housings and hoods have the following approvals:

- UL
- CSA
- SEV
- CERCHAR – France
- SABS – South African Bureau of Standards

Inserts can be provided with 10 pins up to a maximum output of 11kW (depending on the maximum line currents), to facilitate auxiliaries within the motor. Motors with higher outputs/ high line currents can be supplied with suitable inserts; details available on request.

A safety feature can be utilised with an insert fitted with two short pins (only available on the ten pin insert). Auxiliary circuits can be connected into a low voltage no-volt circuit, disconnecting the supply to the motor, should the socket be detached from the motor, before electrical isolation. Details available on request. *NB* during normal disconnection, the power supply should be isolated before the hood is detached from the housing.

The housing on the motor is no larger than the standard terminal box. In most cases it is smaller.

Motors are supplied with a protective IP55 transport cover, the hood (female plug socket) can be supplied on request.

Housings, hoods and inserts can be supplied in a kit form to enable the modification of existing motors, details available from Brook Crompton.

Housing (plug and socket) technical characteristics

Material – aluminium alloy
Locking device – steel zinc plated
Enclosure – IP55 as standard, IP65 as an option

Caution

When handling this product, please observe the following guidelines:

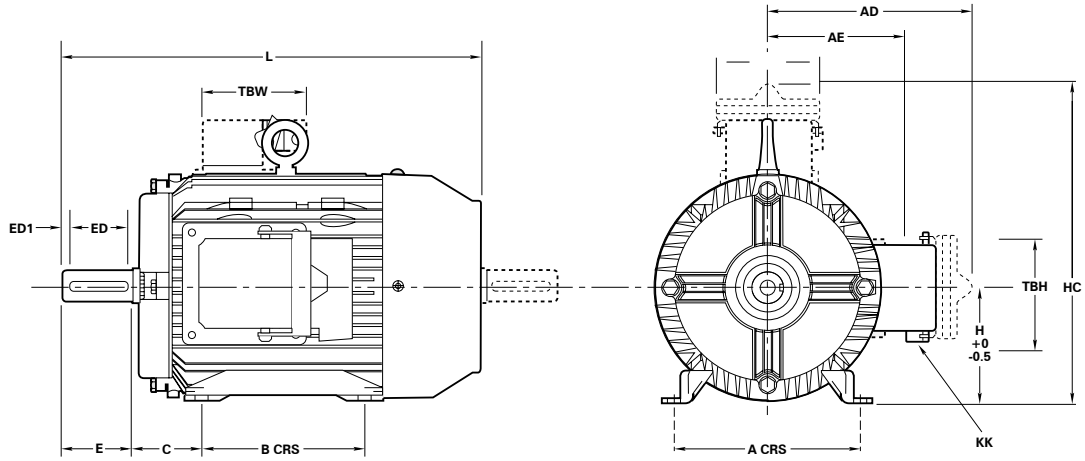
- isolate the power supply before connecting/disconnecting the plug-in hood
- the power supply must be isolated whenever the hood is not inserted into the housing
- when disconnected both halves must be kept clean and dry to prevent accidental damage
- ensure that it is impossible for the cable containing the plug-in hood to drop into liquid/swarf, etc

Further information of this product is detailed in catalogue reference 2100E available from Brook Crompton.

Outputs

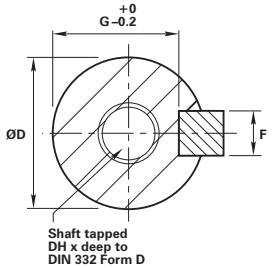
Output	*Frame size*	*I_N @ 400V (A)*
2 Pole (3000 min^{-1})		
0.18	DA63SF	0.62
0.25	DA63SG	0.72
0.37	W-DA71SG	0.88
0.55	W-DA71SK	1.23
0.75	W-DA80ME	1.69
1.1	W-DA80MJ	2.39
1.5	W-DA90SF	3.2
2.2	W-DA90LM	4.4
3.0	W-DA100LJ	5.7
4.0	W-DA112MM	7.2
5.5	W-DA132SE	9.9[1]
7.5	W-DA132SJ	13.3[1]
11	W-DA160MB	19.6[2]
15	Refer to Brook Crompton	
18.5	Refer to Brook Crompton	
22	Refer to Brook Crompton	
4 Pole (1500 min^{-1})		
0.12	DA63SF	0.47
0.18	DA63SG	0.64
0.25	W-DA71SJ	0.80
0.37	W-DA71SK	1.11
0.55	W-DA80ME	1.58
0.75	W-DA80MG	1.88
1.1	W-DA90SE	2.63
1.5	W-DA90LK	3.5
2.2	W-DA100LJ	4.8
3.0	W-DA100LR	6.4
4.0	W-DA112MS	8.3
5.5	W-DA132SJ	11.0[1]
7.5	W-DA132MR	14.7[1]
11	W-DA160MJ	20.9[2]
15	Refer to Brook Crompton	
18.5	Refer to Brook Crompton	
22.0	Refer to Brook Crompton	
0.07	DA63SG	0.34
0.09	W-DA71SG	0.46
0.12	W-DA71SG	0.55
0.18	W-DA71SK	0.75
0.25	W-DA71SR	1.06
0.37	W-DA80MG	1.27
0.55	W-DA80MM	1.77
0.75	W-DA90SG	2.12
1.1	W-DA90LT	3.2
1.5	W-DA100LR	4.3
2.2	W-DA112MS	5.5
3.0	W-DA132SG	7.1
4.0	W-DA132ML	9.0[1]
5.5	W-DA132MM	12.5[1]
7.5	W-DA160MM	16.0[2]
11	Refer to Brook Crompton	
15	Refer to Brook Crompton	
18.5	Refer to Brook Crompton	
0.18	W-DA80MG	0.96
0.25	W-DA80MM	1.2
0.37	W-DA90SG	1.63
0.55	W-DA90LM	2.15
0.75	W-DA100LR	3.1
1.1	W-DA100LT	4.0
1.5	W-DA112MS	4.4
2.2	W-DA132SM	5.9
3.0	W-DA132MR	7.8
4.0	W-DA160ME	9.9[1]
5.5	W-DA160MM	13.2[1]
7.5	W-DA160LV	17.3[2]
11	Refer to Brook Crompton	

Dimensions B3



Type	General											
	A	B	C	H	K	L	AD	AE	HC	TBW	TBH	KK
DA63S	100	80	40	63	7	207	-	-	218.5	85	90	PG16
W-DA71S	112	90	45	71	7	238	-	-	226.5	85	90	PG16
W-DA80M	125	100	50	80	10	295	183	123	263	85	90	PG16
W-DA90S	140	100	56	90	10	322	191	131	281	85	90	PG16
W-DA90L	140	125	56	90	10	322	191	131	281	85	90	PG16
W-DA100L	160	140	63	100	12	368	195	135	295	85	90	PG16
W-DA112M	190	140	70	112	12	381	202	142	314	98	90	PG16
W-DA132S	216	140	89	132	12	451	225	165	357	98	90	PG16
W-DA132M	216	178	89	132	12	451	225	165	357	98	90	PG16
W-DA160M	254	210	108	160	15	605	255	195	415	98	90	PG16
W-DA160L	254	254	108	160	15	605	255	195	415	98	90	PG16
W-DA180M	279	241	121	180	15	667	276	216	456	98	90	PG16
W-DA180L	279	279	121	180	15	667	276	216	456	98	90	PG16

Type	Shaft drive end						
	D	E	F	G	ED	ED1	DH
DA63S	11	23	4	8.5	10	0	M4 x 10
W-DA71S	14	30	5	11	20	5	M5 x 12.5
W-DA80M	19	40	6	15.5	32	4	M6 x 16
W-DA90S	24	50	8	20	40	5	M8 x 19
W-DA90L	24	50	8	20	40	5	M8 x 19
W-DA100L	28	60	8	24	50	5	M10 x 22
W-DA112M	28	60	8	24	50	5	M10 x 22
W-DA132S	38	80	10	33	70	5	M12 x 28
W-DA132M	38	80	10	33	70	5	M12 x 28
W-DA160M	42	110	12	37	100	5	M16 x 36
W-DA160L	42	110	12	37	100	5	M16 x 36
W-DA180M	48	110	14	42.5	100	5	M16 x 36
W-DA180L	48	110	14	42.5	100	5	M16 x 36



Dimensions that are not detailed can be obtained from catalogue reference 2100E
Other mounting options are available, details available from Brook Crompton
[1] if direct-on-line starting is utilised, remote delta (Δ) connection will be required
[2] star delta (YΔ) starting only
Full performance data is detailed in catalogue reference 2100E available from Brook Crompton

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Printed in England
gh103/08/02 9717E issue 2.2e