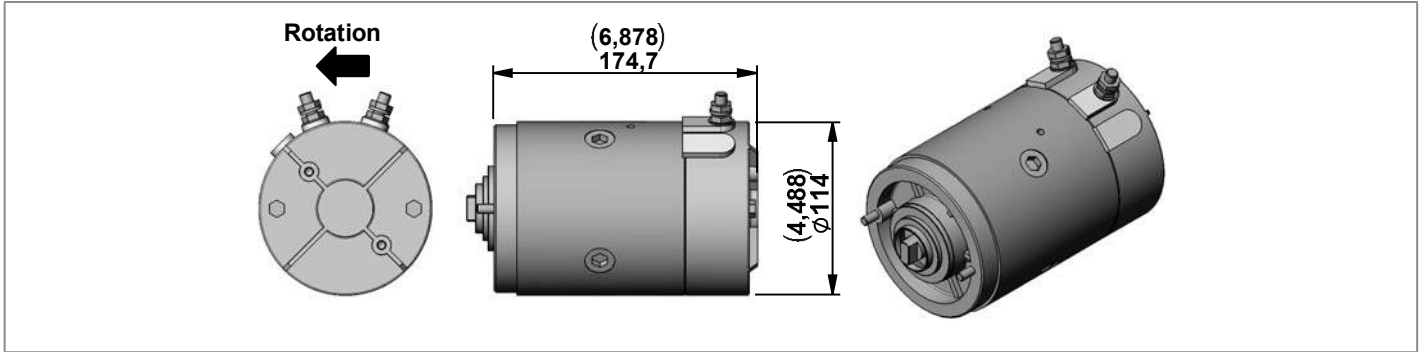
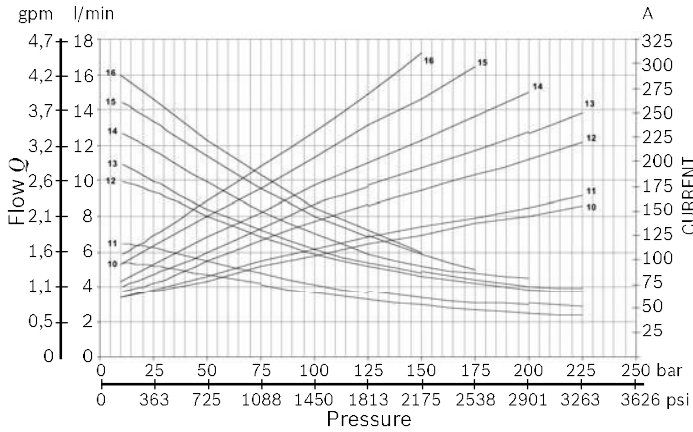


D.C. Electric Motors Standard Performance

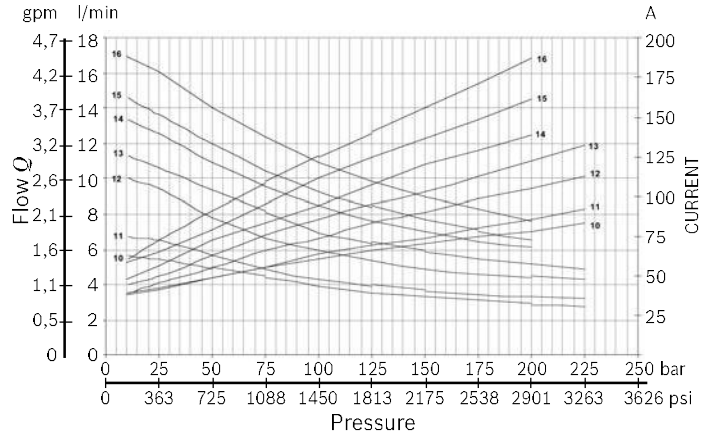


Code	Voltage (V)	Power (W)	Duty Cycle S3% S2 min.	Thermal Switch	UL Certified	Protection index	Type	Material Number
C190	12	1600	5% 2 min	no	yes	IP 54	C1620S1090	R930056392
C191	12	1600	5% 2 min	yes	yes	IP 54	C1620S1091	R930056391
C192	24	2200	5% 2 min	no	yes	IP 54	C1620S1092	R930056390
C193	24	2200	5% 2 min	yes	yes	IP 54	C1620S1093	R930056389

Electric Motor C190-191 (12V – 1600W) Diagrams



Electric Motor C192 - C193 (24V – 2200W) Diagrams



S2 - S3 performance

Amps	S2 (min.)	S3(%) (10 min.)
150	5,5	12%
200	3,5	8%
250	2	6%
300	1,5	4%
350	1	3%

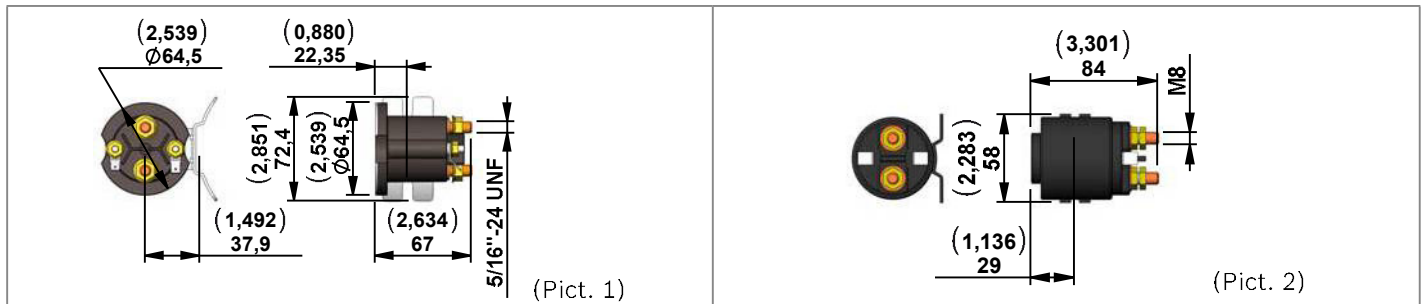
S2 - S3 performance

Amps	S2 (min.)	S3(%) (10 min.)
75	5	12%
100	3	7%
125	1,8	5%
150	1	4%
175	0,7	2,5%

Note

The values of the curves may change slightly depending on the brand / model of pump that is mounted.

Relay



Starting Relay **Standard Performance** (Pict. 1)

Code	Voltage (V)	Nominal Current (A)	Short time Current (A)	Protection INDEX	UL Certified	Type	Material Number
A	Without Relay						
G	12	150	350	IP66	NO	C165534000	R932000692
H	24	150	350	IP66	NO	C165535000	R932000693
L	24	150	350	IP66	YES	C165540000	R932008749

Starting Relay **High Performance** (silver plate contact) (Pict. 2)

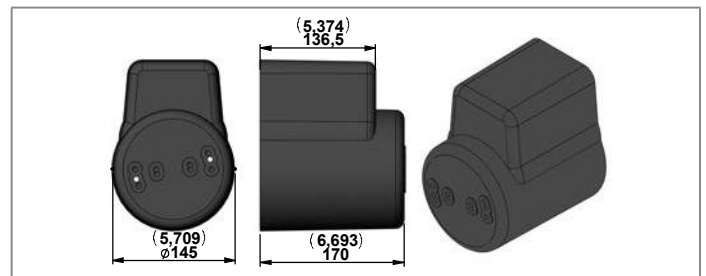
Code	Voltage (V)	Nominal Current (A)	Short time Current (A)	Protection INDEX	UL Certified	Type	Material Number
A	Without Relay						
C	12	150	350	IP54	NO	C165524000	R932000690
E	24	150	350	IP54	NO	C165525000	R932000691

Kit Motor + Relay



Motor + Relay	Type	Material Number
C190+relay 12V STANDARD performance	K396812190PSCUF	R930034093
C190+relay 12V HIGH performance	K396812190C	R930034094
C191+relay 12V STANDARD performance	K396812191PSCUF	R930034095
C191+relay 12V HIGH performance	K396812191C	R930034097
C192+relay 24V STANDARD performance	K396824192PSCUF	R930035261
C192+relay 24V STANDARD performance UL certified	K396824192PSUL	R930034098
C192+relay 24V HIGH performance	K396824192E	R930034101
C193+relay 24V STANDARD performance	K396824193PSCUF	R930034102
C193+relay 24V STANDARD performance UL certified	K396824193PSUL	R930035112
C193+relay 24V HIGH performance	K396824193E	R930035252

Plastic Protection

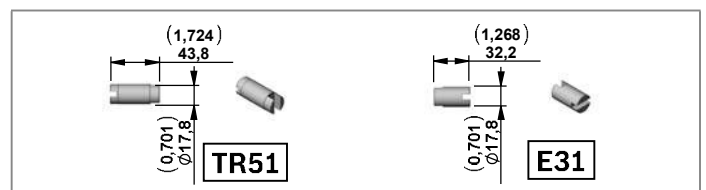


Code	Type	Material Number
0	Without Protection -	-
1	With Protection	K229701000

Kit for assembly plastic protection

Type	Material Number
K01K211565000	R930059147

Junction Elements for D.C. Electric Motor



Junction Elements for manifolds

Code	Series	Type	Material Number
TR51	KE - KS	K01KE970TR051	R932001901
E31	K	K01K3970TR008	R932001907