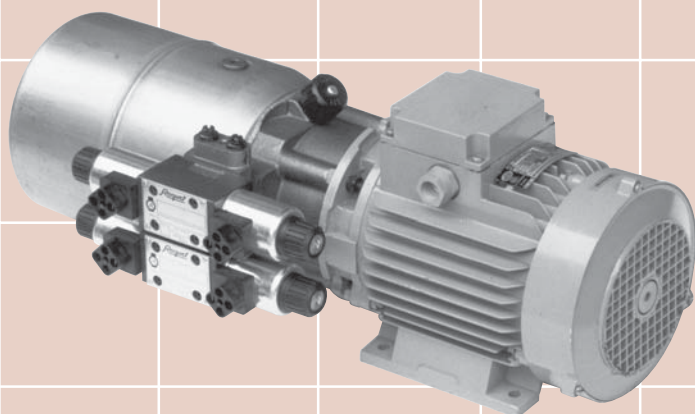
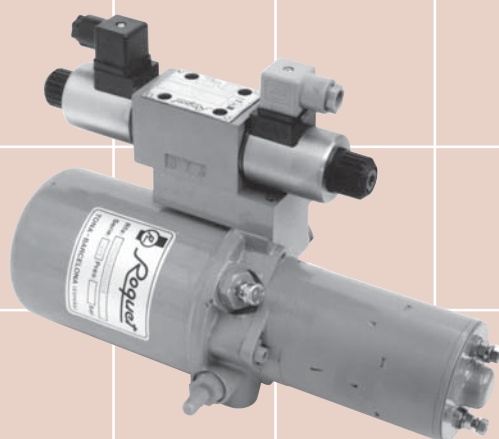
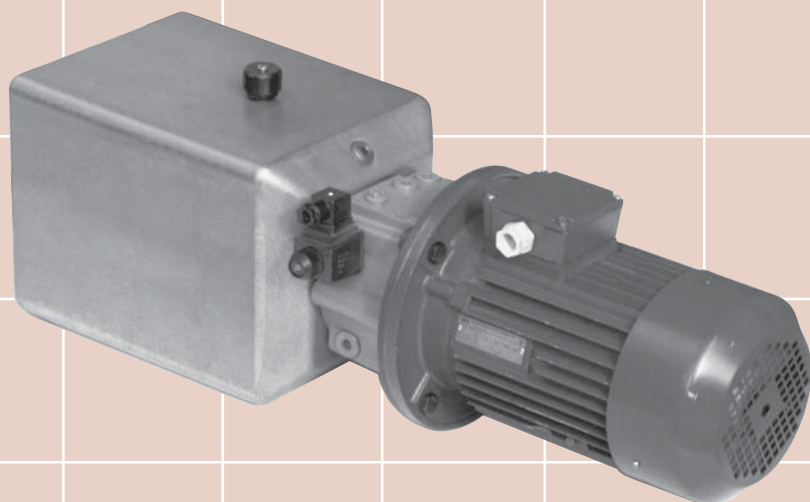




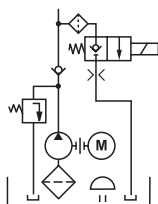
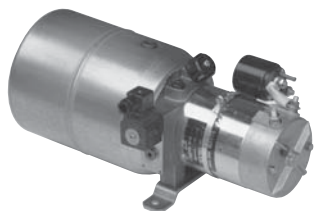
Roquet

Componentes oleo-dinámicos *Hydraulic components*

15.01.01/04.03



Grupos motobombas
Hydraulic power pack units

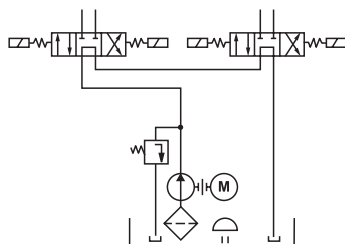
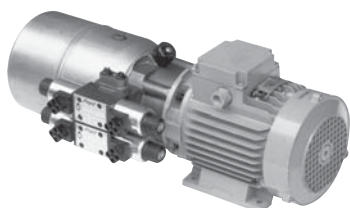


Motobomba especialmente útil para el accionamiento de cilindros de simple efecto cuyo descenso se efectúa por gravedad.

Las aplicaciones más corrientes pueden ser plataformas elevadoras, elevación de vehículos, tapas posteriores para carga y descarga de camiones, etc.

Power packs for single-acting cylinder systems where the load descends by gravity.

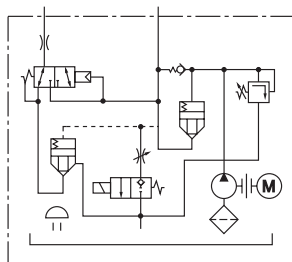
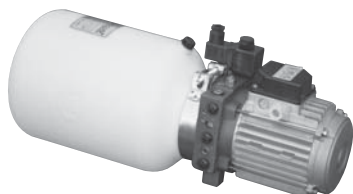
Typical applications include lift platforms, car lifts, tail-lifts for trucks, etc.



Motobomba para aplicaciones más complejas, que permite la posibilidad de incorporar la gama modular TN-6 (CETOP 3).

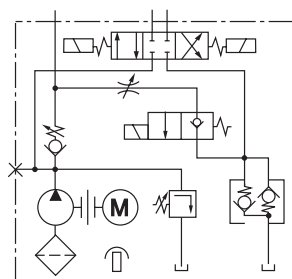
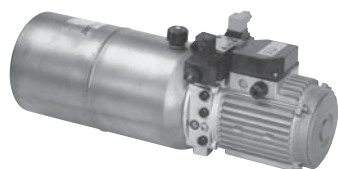
Principalmente indicado para aplicaciones industriales como utillajes, bloqueo de máquinas, prensas, etc.

Power packs for more complicated systems where the full range of CETOP 3 solenoid valves (and modules) can be fitted. Mainly used for industrial applications such as machine tools, clamping systems, presses, compactors, etc.



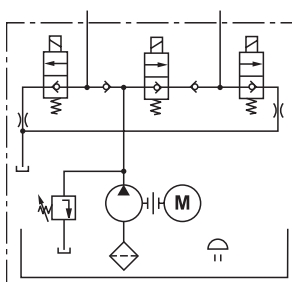
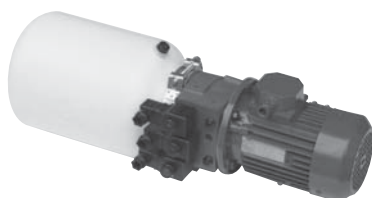
Motobomba específico para muelles de carga, con el cual se consigue la flotación necesaria en las variaciones de altura del camión en la operación de carga y descarga.

A typical power pack for dock-levelling systems for loading bays-giving full control of the unloading ramp so that it follows movement of the truck as it is loaded or un-loaded.



Ejemplo clásico de motobomba para muelles de carga de altura variable, con la particularidad de que la rampa es retráctil.

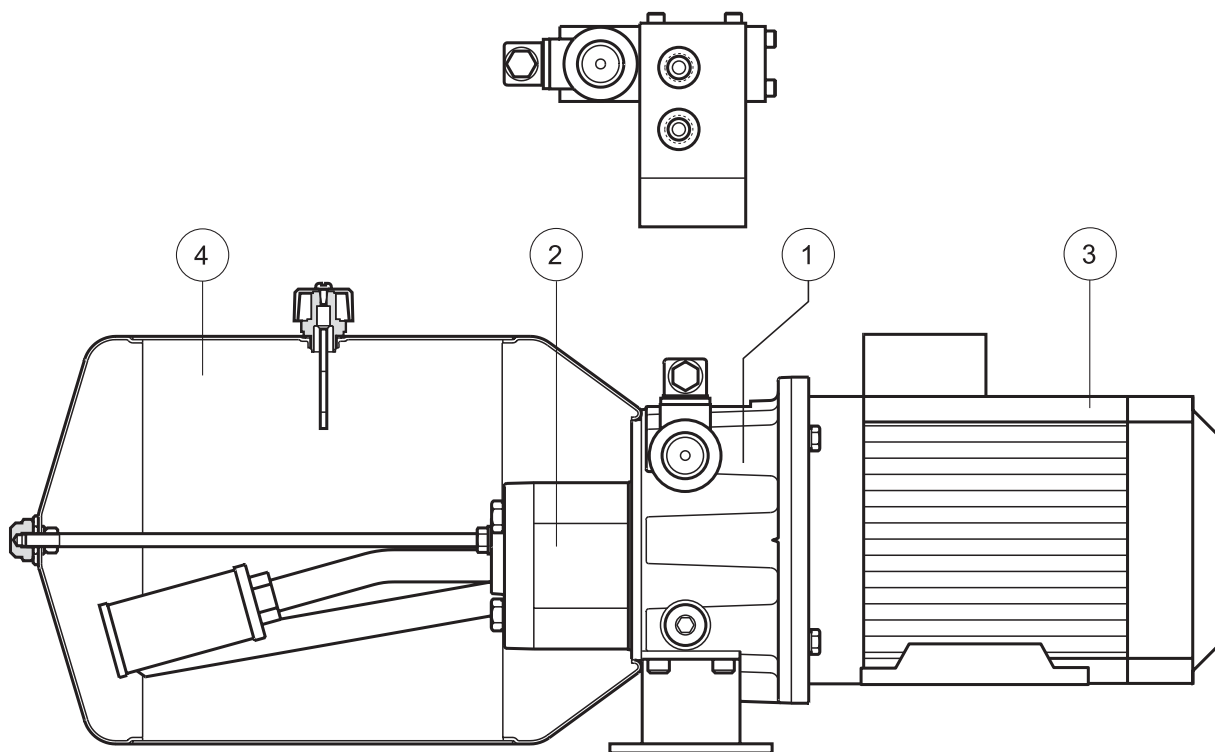
Variation of the typical dock-leveller power pack for telescopic lips.



Ejemplo de un motobomba específico para trenes de lavado.

Lleva incorporado todos los elementos necesarios para efectuar los movimientos en las operaciones de lavado y secado.

A special power pack developed for car washers, including the controls required for the washing and drying cycles.



1	GBS	10	A50A18	K	12	C0024-50	-	
▲	▲	▲	▲	▲	▲	▲	▲	▲
1	2	3	4	5	6	7		

1	Sistema de control y forma de montaje <i>Control system and modular unit options</i>
2	Caudal bomba <i>Pump displacement</i>
3	Tipo motor y tensión <i>Suitable for motor type and motor voltage</i>
4	Tipo depósito <i>Tank type</i>
5	Válvula limitadora <i>Relief valve</i>
6	Xiclé y tensión válvula bajada / Tensión y frecuencia electroválvulas <i>Orifice & voltage lowering valve / Valve solenoid voltage</i>
7	Datos adicionales <i>Additional data</i>

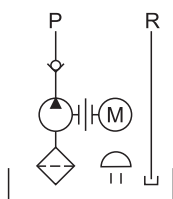
Ejemplo: La referencia indica un grupo motobomba con válvula de retención eléctrica de 24V. 50Hz sin pulsador y normalmente cerrada. Cilindrada de la bomba 10,6 cm³/v. Con un motor eléctrico de corriente alterna de 220-380V. 50Hz 1500 RPM y 3CV de potencia. El depósito es de 20 litros y el taraje de la válvula limitadora estará entre 80-175 bar. Va sin xiclé de bajada.

Example: The part number given indicates power pack with n/c 24V. 50Hz. solenoid operated check valve without over-ride. Pump displacement 10.6 cm³/rev. 220-380V. 50Hz. electric motor 3HP, 1500 RPM. Tank of 20 litres and relief valve range 80-175 bar. no lowering fitted.

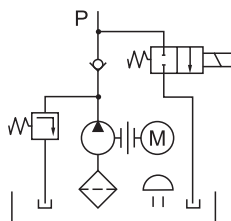
Sistema de control Control system

1

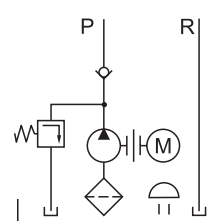
0 Sin válvulas
No valves



1 Válvula retención eléctrica
Solenoid lowering valve



7 Sólo válvula limitadora
Relief valve only

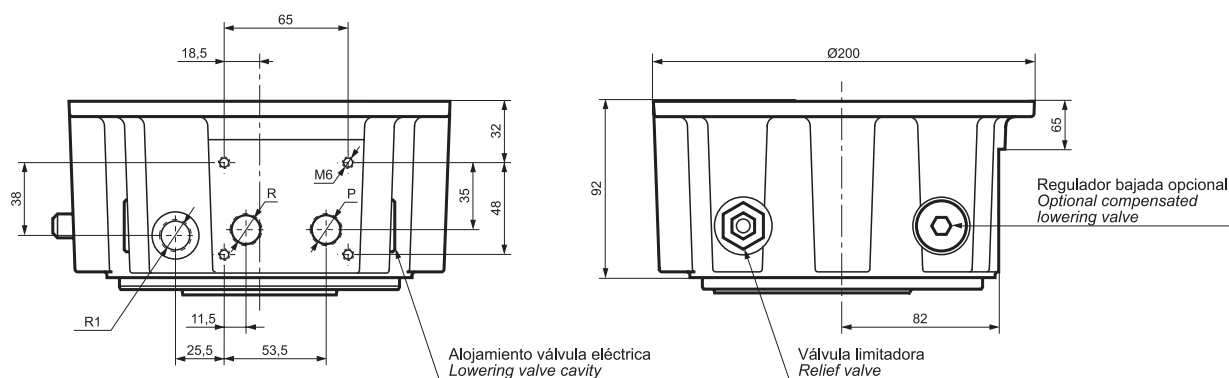


Soporte / Support

P = Salida presión / Pressure port 3/8" BSP

R = Retorno / Return 3/8" BSP

R1 = Retorno opcional / Optional return 3/8" BSP



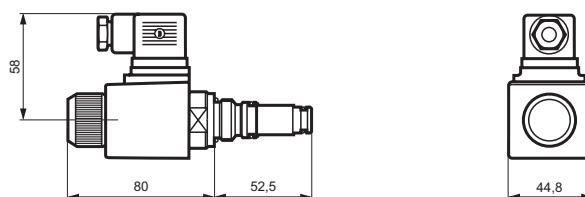
Válvula retención eléctrica / Solenoid lowering valve

2108*/C* (DC) Normalmente cerrado / (DC) Normally closed

2109*/C* (DC) Normalmente abierto / (DC) Normally open



2108*/R* (AC) Normalmente cerrado / (AC) Normally closed

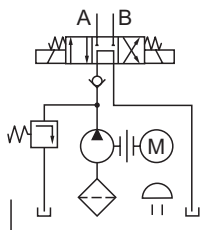


Sistema de control Control system

1 3

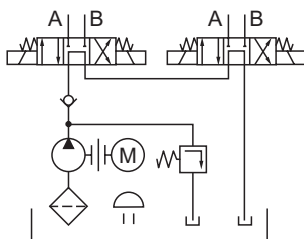
2

1 electroválvula TN6 forma 1
1 CETOP 3 valve, spool 1



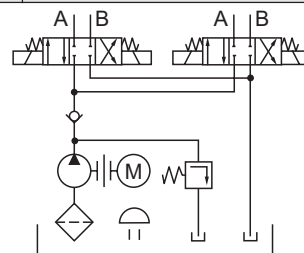
3

2 electroválvulas TN6 forma 1
2 CETOP 3 valves, spool 1



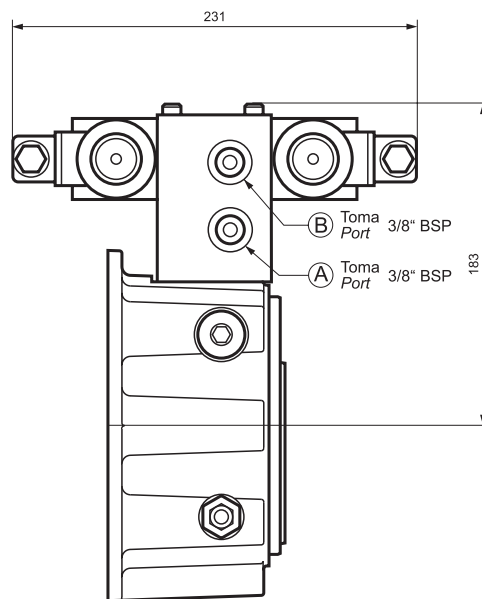
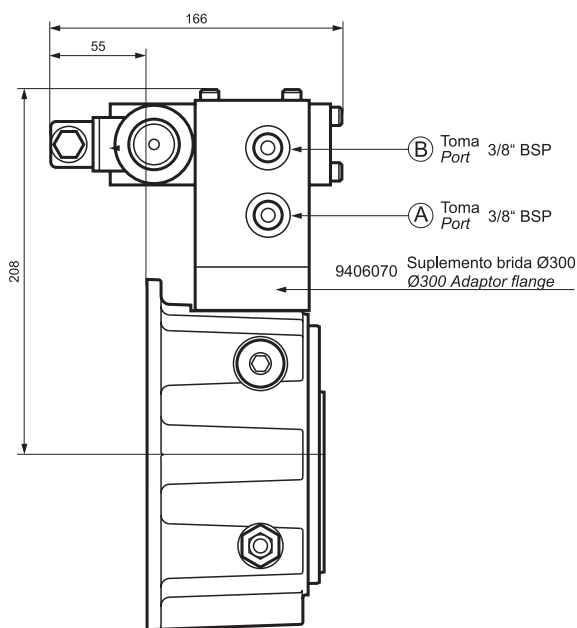
13

2 electroválvulas TN6 forma 2
2 CETOP 3 valves, spool 2

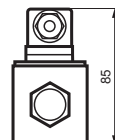
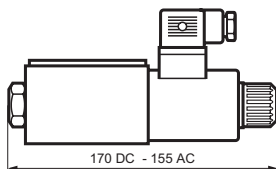
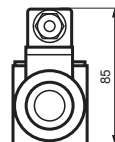
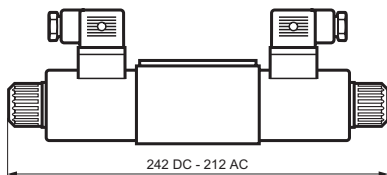
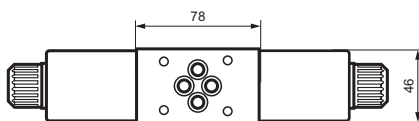


1 Electroválvula TN6 / 1 CETOP 3 valve

2 Electroválvulas TN6 / 2 CETOP 3 valve

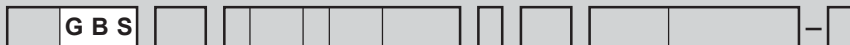


Electroválvula TN6 / CETOP 3 valve



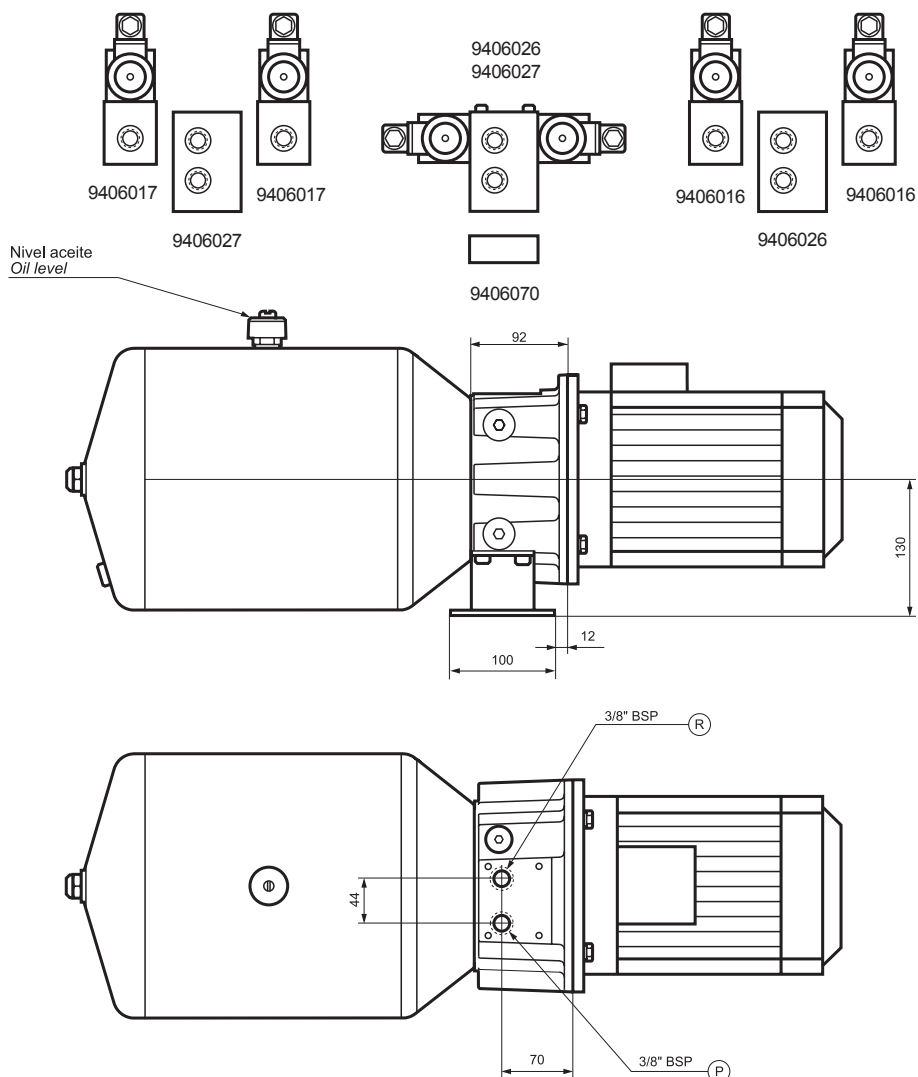
Además de los sistemas de control representados, podemos suministrar una gran diversidad de montajes de circuitos. Rogamos consulten a nuestro departamento comercial.
In addition to the versions shown, we can supply power packs with a wide range of different circuits for specific applications. Please contact us with details of your requirements.

Forma de montaje Modular unit options

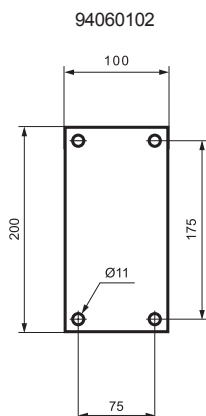


GBE Motor y bomba con depósito
Motor and pump with integral tank.

P = Salida presión / Pressure port
R = Retorno / Return

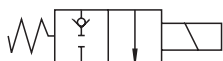


Base de fijación
Mounting bracket



GBS Válvula de retención eléctrica sin pulsador.
Solenoid lowering valve without over-ride.

Normalmente cerrada / Normally closed



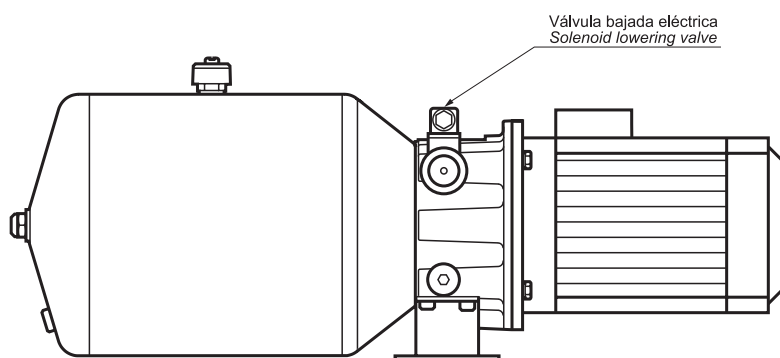
2018*/R*
2018*/C*

GBT Válvula de retención eléctrica sin pulsador.
Solenoid lowering valve without over-ride.

Normalmente abierta / Normally open



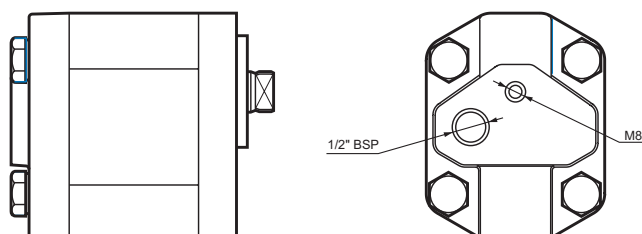
2019*/C*



Caudal bomba Pump flow



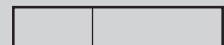
Caudal por revolución Pump displacement		Referencia Reference
6	6 cm ³ /v.	1L9IB41T-S2
8	8 cm ³ /v.	1L12IB41T-S2
10	10,6 cm ³ /v.	1L16IB41T-S2



Tipo motor y tensión Motor type and voltage



A 5 0 A 1 8



Montaje con motor / With motor

Tipo corriente motor Suitable for motor type

A

A	Alterna A.C.
C	Continúa D.C. *

Tensión y frecuencia del motor Motor voltage

5 0

24	24V. D.C. / 24 V. D.C.
50	220-380V 50Hz trifásica / 3 Ph
60	250-440V 60Hz trifásica / 3 Ph
110	110V C.A. monofásica / 1 Ph
220	220V C.A. monofásica / 1 Ph

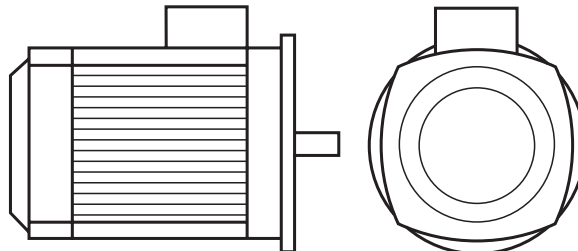
R.P.M. R.P.M.

A

A	1500 R.P.M.
B	3000 R.P.M.
C	Velocidad variable D.C. Variable speed D. C. *

* Consultar con departamento técnico
Consult technical department

Potencias, dimensiones y capacidades según IEC 60072
Power, dimensions and capacity to IEC 60072



Potencia motor en CV Motor power HP

1 8

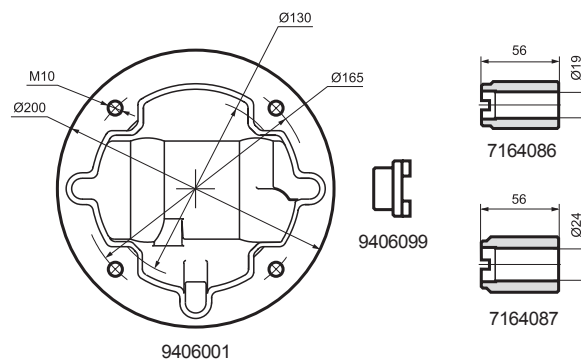
07	0,75 CV / HP	Tipo / Frame 80
09	1 CV / HP	
12	1,5 CV / HP	
15	2 CV / HP	Tipo / Frame 90
18	3 CV / HP	
22	4 CV / HP	
25	5,5 CV / HP	Tipo / Frame 100
27	7,5 CV / HP	
29	10 CV / HP	

Montaje sin motor / Without motor

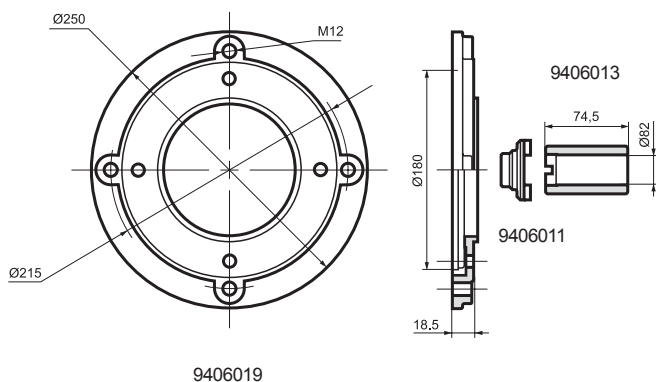
Brida Flange

019	Ø200
024	Ø200
028	Ø250
038	Ø300

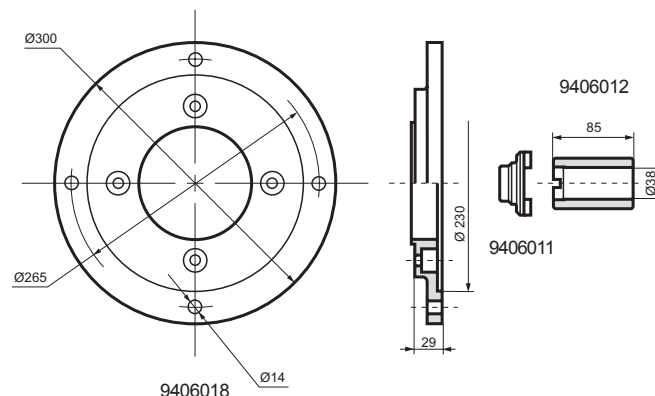
Motor tipo 80-90 / Motor type 80-90



Motor tipo 100-112 / Motor type 100-112



Motor tipo 132 / Motor type 132



						K				-	
--	--	--	--	--	--	---	--	--	--	---	--

Note: When a power pack is ordered without tank (S) the 7.5 litre tank accessories will be supplied.

[illegible]Forma de regulación / *Adjusting type*

								C	0	0	2	4	-	5	0	-
--	--	--	--	--	--	--	--	---	---	---	---	---	---	---	---	---

Tensión y frecuencia electroválvula Valve solenoid voltage		24 - 50
12	12V D.C.	
24	24V D.C.	
24-50	24V - 50Hz.	
48-50	48V - 50Hz.	
110-50	110V - 50Hz.	
220-50	220V - 50Hz.	

[illegible]

R	Regulador bajada compensada <i>Compensated lowering flow control</i>
P	Con pulsador, sólo accionamiento 1 <i>With over-ride only control system 1</i>

Datos técnicos

Technical data

Generalidades

General data

Montaje <i>Mounting positions</i>	Horizontal o vertical <i>Horizontal or vertical</i>
Accionamiento válvulas <i>Control systems</i>	Eléctrico o manual <i>Solenoid or manual</i>

Hidráulicos

Hydraulic data

Desplazamiento volumétrico <i>Pump displacement</i>	6 - 8 - 10,6 cm ³ /V - cc/r	
Presión máx. trabajo en bomba <i>Pump max. working pressure</i>	225 bar	
Presión máx. de retención en toma <i>Max. load induced pressure</i>	210 bar	Acc.tipo 1 <i>Control system 1</i>
Presión máx. en tomas <i>Max. load induced pressure</i>	225 bar	Acc.tipos 2-3-4 <i>Control systems</i>
Aceite recomendado <i>Fluid to be used</i>	ISO 6743 tipo. HM, HV ó HG	
Viscosidad <i>Viscosity range</i>	ISO 3448 cat. VG32-VG46	
Grado de limpieza del aceite <i>Recommended fluid cleanliness</i>	19/16s/. ISO 4406 10s/. NAS 1638	
Gama temperaturas fluido hidráulico <i>Hydraulic fluid temperatura range</i>	-20°C...+80°C	

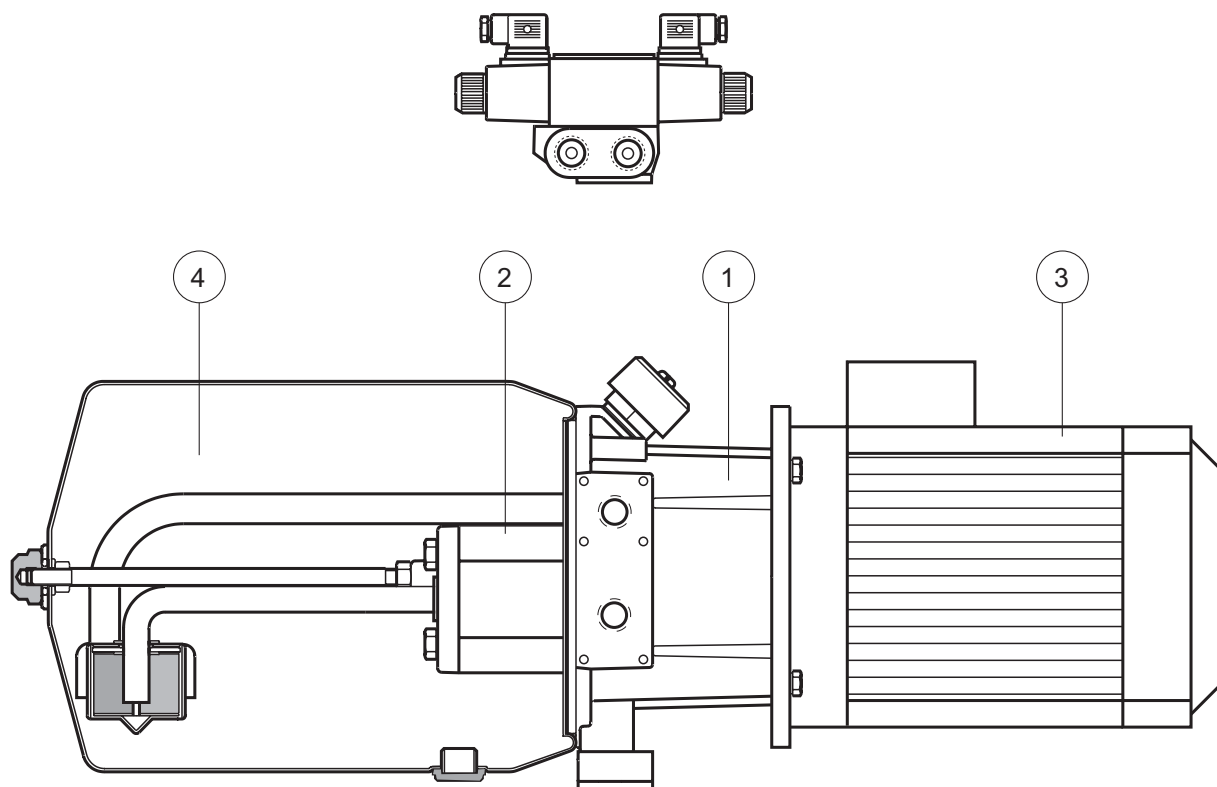
Eléctricos

Electrical

Motores <i>Motors</i>		
Tensión <i>Voltage</i>	12V - 24V D.C. 220/380V - 50 Hz 250/440V - 60 Hz 110V-220V AC Monofásica <i>Single-phase</i>	
Consumo bobina relé D.C. <i>D.C. starter switch current</i>	12V - 2,6 Amp. 24V - 1,3 Amp.	
Consumo motor D.C. <i>D.C. motor current</i>	*	
Electroválvulas <i>Directional control valves</i>	(consumo por electroimán) <i>(consumption per Solenoid)</i>	
Corriente continua <i>D.C.</i>	38 W	
Corriente alterna <i>A.C.</i>	Circuito abierto <i>Open circuit</i>	180VA
	Circuito cerrado <i>Closed circuit</i>	65V
Gama de tensiones para D.C. <i>D.C. Voltage range</i>	12V - 24V - 48V	
Gama tensiones para A.C. <i>A.C Voltage range</i>	24V - 48V - 110V - 220V (50Hz) 115V - 230V (60Hz)	
Protección según <i>Protection to</i>	DIN-40050	IP - 65
Tolerancia de la tensión <i>Voltage tolerance</i>	Unom ± 10%	

* Consultar con departamento técnico

* Consult technical departament



1	M B P	2	A 5 0 A 1 5	D	1 2	C 0 0	2 4 - 5 0	—	
1		2		4	5		6		7

1	Sistema de control y forma de montaje Control system and modular unit options
2	Caudal bomba Pump displacement
3	Tipo motor y tensión Suitable for motor type and motor voltage
4	Tipo depósito Tank type
5	Válvula limitadora Relief valve
6	Xiclé y tensión válvula bajada / Tensión y frecuencia electroválvulas Orifice & voltage lowering valve / Valve solenoid voltage
7	Datos adicionales Additional data

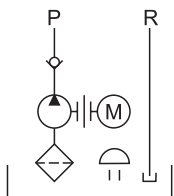
Ejemplo: La referencia indica un grupo motobomba con válvula de retención eléctrica de 24V 50Hz con pulsador y normalmente cerrada. Cilindrada de la bomba 2 cm³/v. Con un motor eléctrico de corriente alterna de 220-380V. 50Hz 1500 RPM y 2CV de potencia. El depósito es de 7,5 litros y el taraje de la válvula limitadora estará entre 80-175 bar. Va sin cicló de bajada.

Example: The part number given indicates power pack with n/c 24V. 50Hz. solenoid operated check valve with over-ride. Pump displacement 2 cm³/rev. 220-380V. 50Hz. electric motor 2HP, 1500 RPM. Tank of 7,5 litres and relief valve range 80-175 bar no lowering fitted.

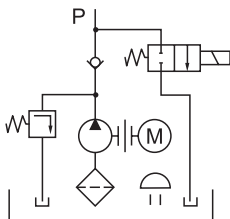
Tipo accionamiento Control system

1

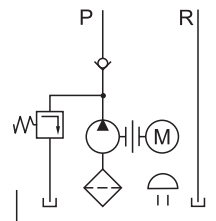
0 Sin válvulas
No valves



1 Válvula retención eléctrica
Solenoid lowering valve



7 Sólo válvula limitadora
Relief valve only



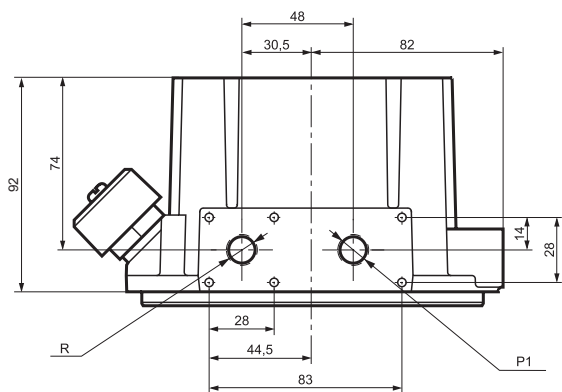
Soportes / Support

P = Salida presión / Pressure port 1/4" BSP

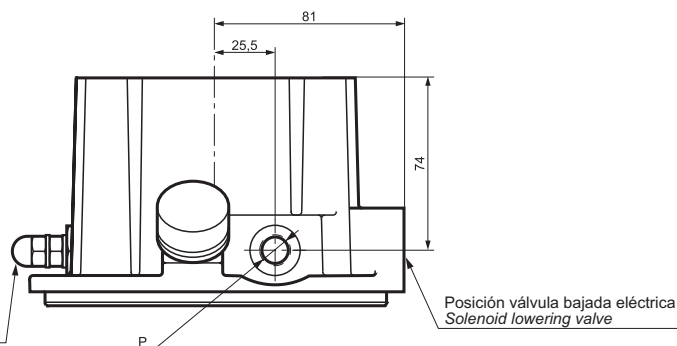
R = Retorno / Return 1/4" BSP

P1 = Presión opcional / Optional pressure port 1/4" BSP

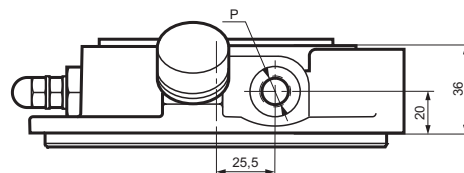
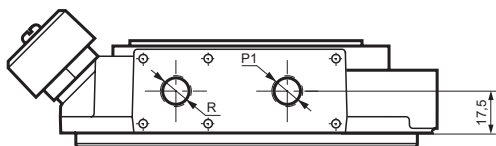
Motores AC / Motors AC



Válvula limitadora
Relief valve

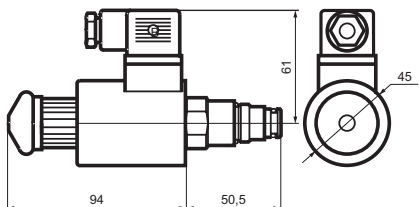


Motores DC / Motors DC

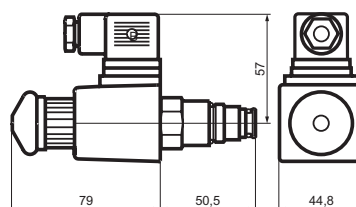


Válvula retención eléctrica / Solenoid lowering valve

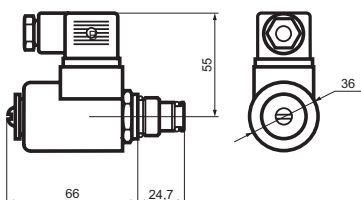
M8746/C* (DC) Normalmente cerrado / (DC) Normally closed
M9491/C* (DC) Normalmente abierto / (DC) Normally open



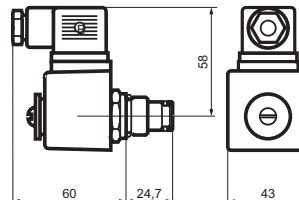
M8747/R* (AC) Normalmente cerrado / (AC) Normally closed



M8649/C* (DC) Normalmente cerrado / (DC) Normally closed



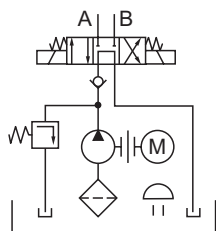
M9073/R* (DC) Normalmente cerrado / (DC) Normally closed



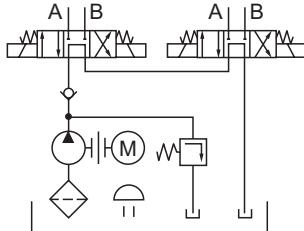
Sistema de control Control system

3

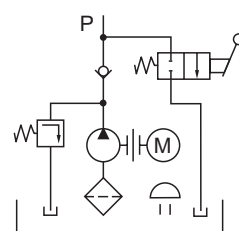
2 1 electroválvula TN6 forma 1
1 CETOP 3 valve, spool 1



3 2 electroválvulas TN6 forma 1
2 CETOP 3 valves, spool 1

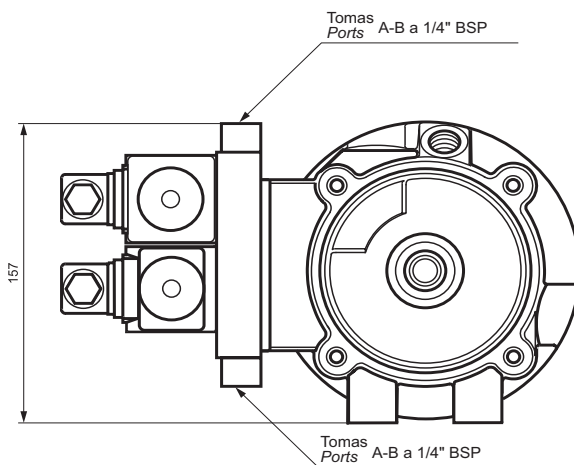
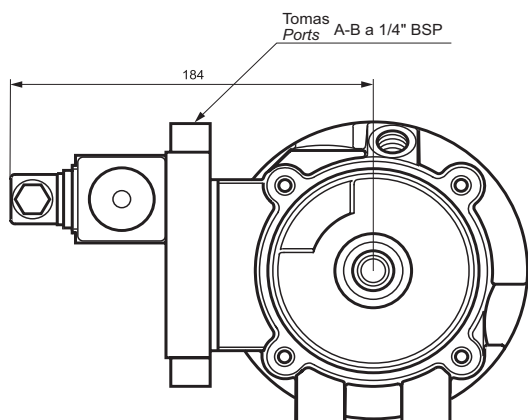


4 Válvula bajada manual
Manual lowering valve

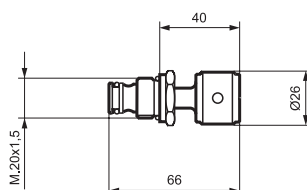
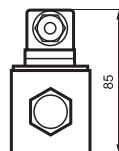
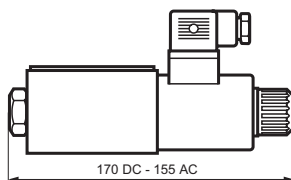
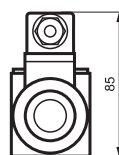
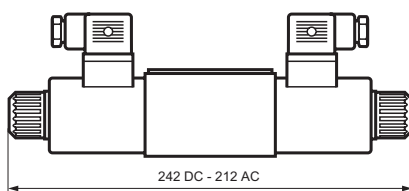
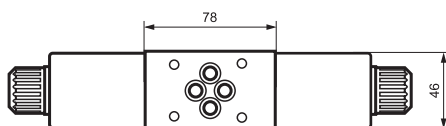


1 Electroválvula TN6 / 1 CETOP 3 valve

2 Electroválvulas TN6 / 2 CETOP 3 valve



Electroválvula TN6 / CETOP 3 valve



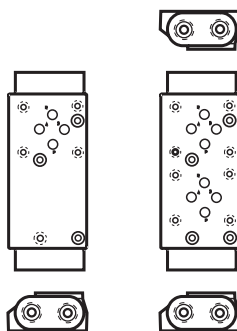
Además de los sistemas de control representados, podemos suministrar una gran diversidad de montajes de circuitos. Rogamos consulten a nuestro departamento comercial.
In addition to the versions shown, we can supply power packs with a wide range of different circuits for specific applications. Please contact us with details of your requirements.

Forma de montaje Modular unit options

MBP

MBE Motor y bomba con depósito
Motor and pump with integral tank.

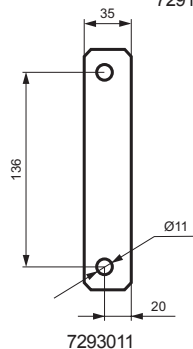
P = Salida presión / Pressure port
R = Retorno / Return



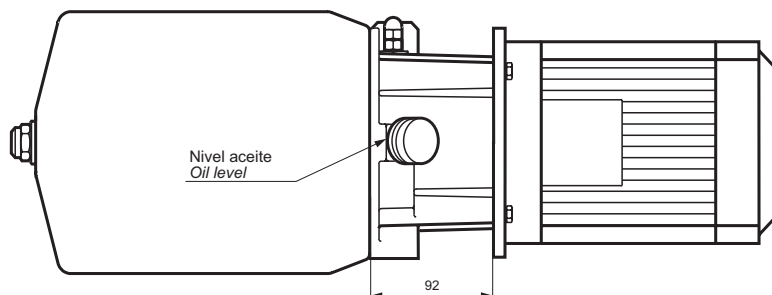
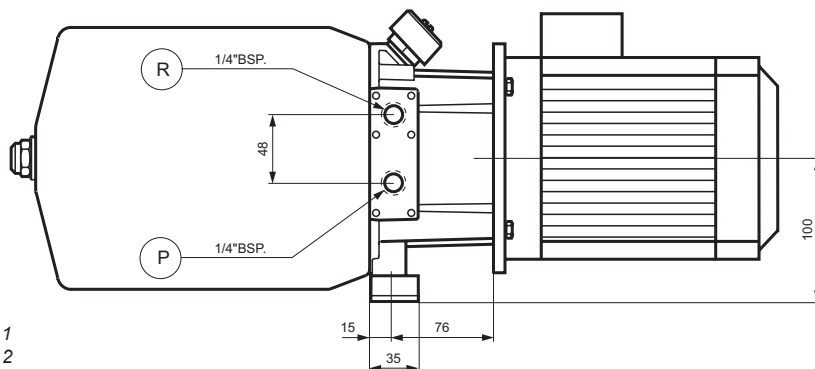
7013024

7037024 Forma 1 / Form 1
7291026 Forma 2 / Form 2

Base de fijación
Mounting bracket

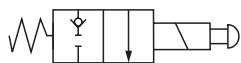


7293011



MBP Válvula de retención eléctrica con pulsador.
Solenoid lowering valve with over-ride.

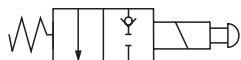
Normalmente cerrada / Normally closed



M8746/C*
M8747/R*

MBR Válvula de retención eléctrica con pulsador.
Solenoid lowering valve with over-ride.

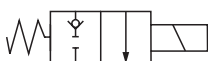
Normalmente abierta / Normally open



M9491/C*

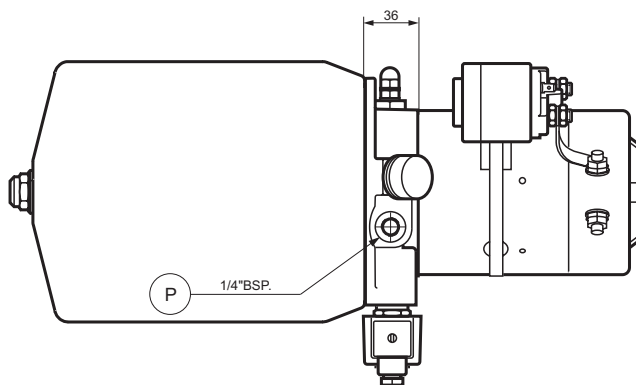
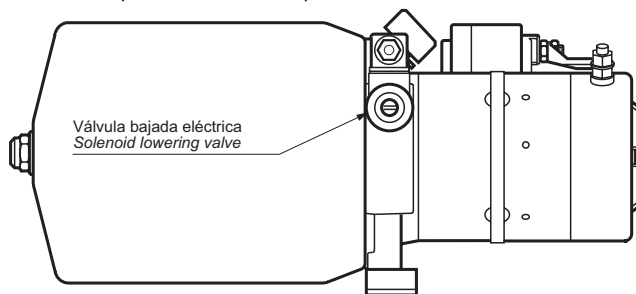
MBS Válvula de retención eléctrica sin pulsador.
Solenoid lowering valve without over-ride.

Normalmente cerrada / Normally closed



M8649/C*
M9073/R*

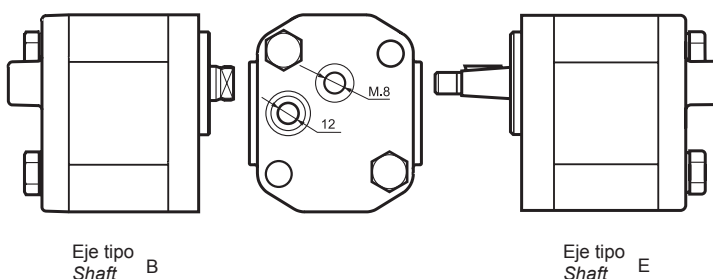
P = Salida presión / Pressure port



Tipo bomba Pump type

2

Motores / Motors		Tipo / Type 71		Tipo / Type 80-90-100-112	
Caudal por revolución Pump displacement		Referencia Reference	Eje/Shaft B	Referencia Reference	Eje/Shaft E
1	1 cm ³ /v.	1L01,5IB12T-S1		1L01,5IE12T-S1	
2	2 cm ³ /v.	1L03IB12T-S1		1L03IE12T-S1	
3	3,3 cm ³ /v.	1L05IB12T-S1		1L05IE12T-S1	
4	5 cm ³ /v.	1L07,5IB12T-S1		1L07,5IE12T-S1	



Tipo motor y tensión Motor type and voltage



A 5 0 A 1 5



Montaje con motor / With motor

Tipo corriente motor Suitable for motor type

A

A	Alternativa brida Ø160 / A.C. Ø160 flange
B	Alternativa brida Ø200 / A.C. Ø200 flange
C	Continúa / D.C.
D	Alternativa brida Ø250 / A.C. Ø250 flange

Tensión y frecuencia del motor Motor voltage

5 0

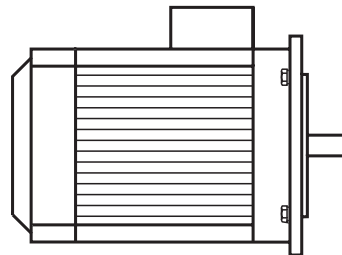
12	220 12V DC. / 12 V. DC.
24	24V. DC. / 24 V. DC.
50	220/380V 50HZ trifásica / 3 Ph.
60	220/380V 60Hz trifásica / 3 Ph.
110	110V C.A. monofásica / 1 Ph.
220	220V C.A. monofásica / 1 Ph.

Velocidad Speed

A

A	1500 RPM.
B	3000 RPM.
C	Velocidad variable D.C. Variable speed D. C

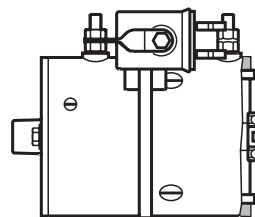
Potencias, dimensiones y capacidades según IEC 60072
Power, dimensions and capacity to IEC 60072



Potencia motor en CV Motor power HP

1 5

2	0,33 CV / HP	Tipo / Frame 71
4	0,5 CV / HP	
7	0,75 CV / HP	Tipo / Frame 80
9	1 CV / HP	
12	1,5 CV / HP	Tipo / Frame 90
15	2 CV / HP	
18	3 CV / HP	Tipo / Frame 100
22	4 CV / HP	
25	5,5 CV / HP	Tipo / Frame 112
10	Motor C.C. / D.C.	



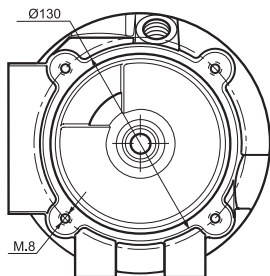
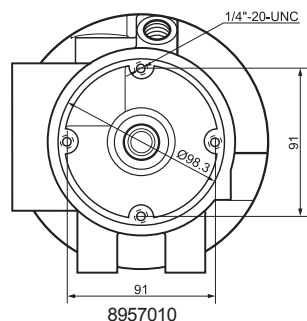
Montaje sin motor / Without motor

Brida Flange

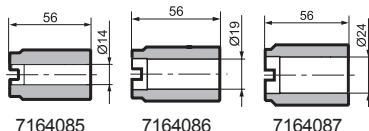


00	Motor D.C. / D.C. Motor
014	Ø160
019	Ø160
119	Ø200
024	Ø160
124	Ø200
028	Ø200
128	Ø250

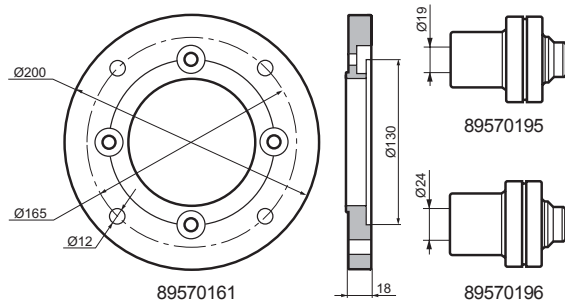
Motor D.C. / Motor D.C



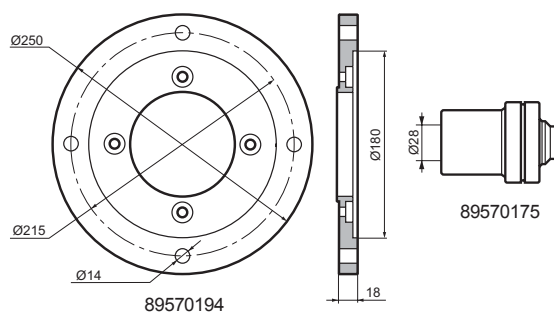
89570131 - 8680005



Motor tipo 80-90 / Motor type 80-90



Motor tipo 100-112 / Motor type 100-112



						D				-	
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En los depósitos código I-H con montaje horizontal se recomienda utilizar la toma roscada del depósito como desvaporador y nivel ya que se consigue una mayor capacidad de aceite, 9 y 14 Lts. respectivamente.

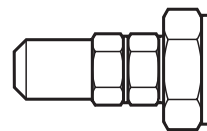
Technical drawing of a rectangular box with the following dimensions and features:

- Top View:** Shows a rectangular box with a width of 320 and a depth of 295. The height is 150. A circular feature is located on the front face, with a diameter of 9. A 3/8" BSP port is located on the right side face.
- Front View:** Shows the front face of the box with a width of 320 and a height of 150. A circular feature is located on the front face, with a diameter of 9. A 3/8" BSP port is located on the right side face.
- Side View:** Shows the side face of the box with a width of 295 and a height of 150. A 3/8" BSP port is located on the right side face.
- End View:** Shows the end face of the box with a width of 320 and a height of 150. A 3/8" BSP port is located on the right side face.
- Top View (Detail):** Shows a detail of the top face of the box with a width of 320 and a depth of 295. A circular feature is located on the front face, with a diameter of 9. A 3/8" BSP port is located on the right side face.
- Bottom View:** Shows the bottom face of the box with a width of 320 and a depth of 295. A circular feature is located on the front face, with a diameter of 9. A 3/8" BSP port is located on the right side face.

Note: When a power pack is ordered without tank (S) the 2,5 litre tank accessories will be supplied.

[illegible]

Taraje válvula limitadora <i>Sitting relief valve</i>	
11	5 - 75 bar
12	80 - 175 bar
13	180 - 250 bar



									C 0 0	2 4 - 5 0	-	
--	--	--	--	--	--	--	--	--	-------	-----------	---	--

C 0 0	
-------	--

	2 4 - 5 0
--	-----------

12	12V C.C.
24	24V C.C.
24-50	24V - 50Hz
48-50	48V - 50Hz
110-50	110V - 50Hz
220-50	220V - 50Hz

[illegible]

B	Motor y grupo sin patas <i>Motor and pack without feet</i>
C	Motor con brida y grupo con patas <i>Motor with flange. Pack with motor</i>

Datos técnicos

Technical data

Generalidades General data	
Montaje Mounting positions	Horizontal o vertical Horizontal or vertical
Accionamiento válvulas Control systems	Eléctrico o manual Solenoid or manual
Tiempos de conexión On-duty time	Ver diagramas See performance curves

Hidráulicos Hydraulic data	
Desplazamiento volumétrico Pump displacement	1 - 2 - 3,3 - 5 cm³/V - cc/r
Presión máx. trabajo en bomba Pump max. working pressure	250 bar
Presión máx. de retención en toma Max. load induced pressure	210 bar Acc.tipo 1 Control system 1
Presión máx. en tomas Max. load induced pressure	250 bar Acc.tipos 2-3-4 Control systems
Aceite recomendado Fluid to be used	ISO 6743 tipo. HM, HV ó HG
Viscosidad Viscosity range	ISO 3448 cat. VG32-VG46
Grado de limpieza del aceite Recommended fluid cleanliness	19/16s/. ISO 4406 10s/. NAS 1638
Gama temperaturas fluido hidráulico Hydraulic fluid temperatura range	-20°C...+80°C

Eléctricos <i>Electrical</i>		
Motores <i>Motors</i>		
Tensión <i>Voltage</i>		12V - 24V D.C. 220/380V - 50 Hz 250/440V - 60 Hz 110V-220V AC Monofásica <i>Single-phase</i>
Consumo bobina relé D.C. <i>D.C. starter switch current</i>		12V - 2,6 Amp. 24V - 1,3 Amp.
Consumo motor D.C. <i>D.C. motor current</i>		Ver gráficos <i>See performance curves</i>
Electroválvulas <i>Directional control valves</i> (consumo por electroimán) <i>(consumption per Solenoid)</i>		
Corriente continua <i>D.C.</i>		38 W
Corriente alterna A.C.	Circuito abierto <i>Open circuit</i>	180VA
	Circuito cerrado <i>Closed circuit</i>	65V
Gama de tensiones para D.C. <i>D.C. Voltage range</i>		12V - 24V - 48V
Gama tensiones para A.C. <i>A.C Voltage range</i>		24V - 48V - 110V - 220V (50Hz) 115V - 230V (60Hz)
Protección según DIN-40050 <i>Protection to</i>		IP - 65
Tolerancia de la tensión <i>Voltage tolerance</i>		Unom ± 10%

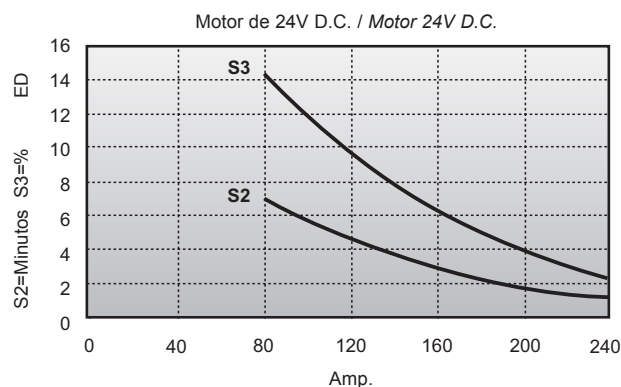
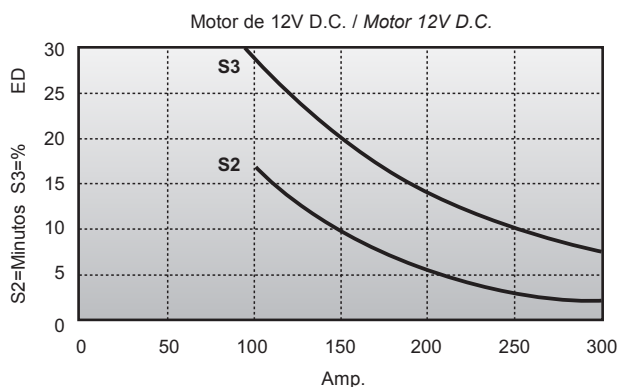
Tiempos de conexión Connection times

S2 representa el n° máx. de minutos seguidos que puede estar el motor conectado.

S2 is the number of minutes the motor can be run (from cold).

S3 representa el porcentaje de tiempo que el motor puede estar conectado durante un ciclo.

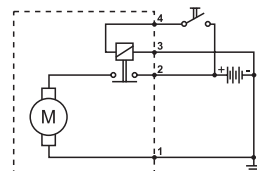
S3 is the percentage of time that the motor can be connected during a cycle.



Forma correcta de efectuar el conexionado en un motor de D.C.
No usar el chasis como conductor.

Correct method to connect a D. C. motor.

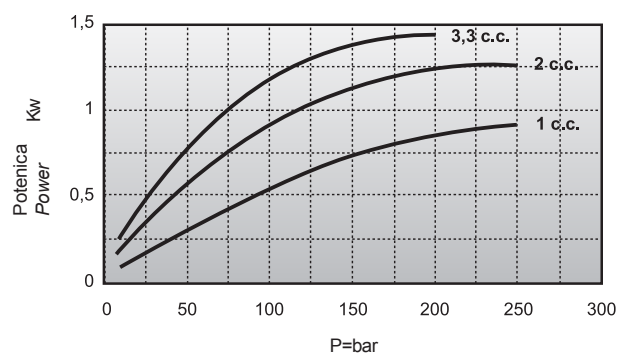
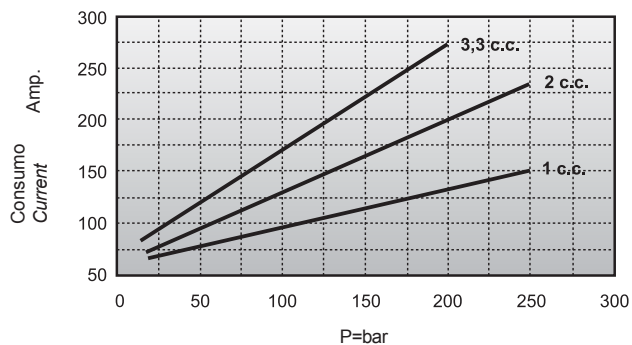
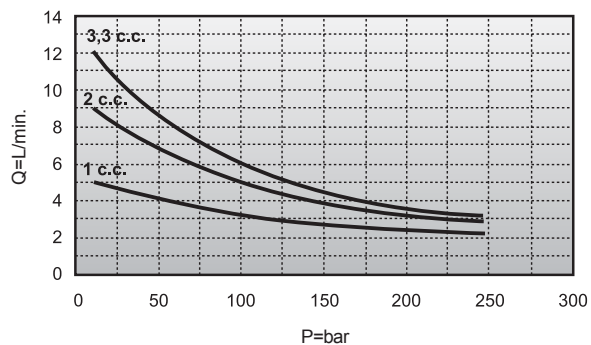
The chassis of a vehicle should not be used for the one line.



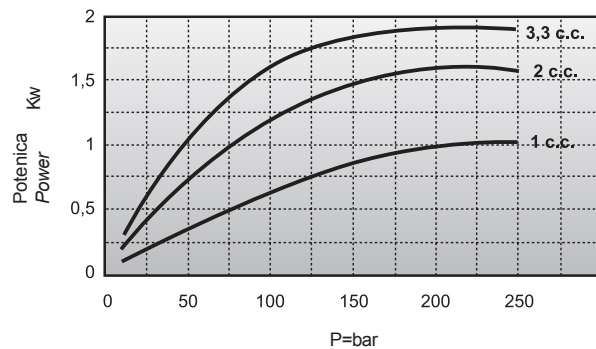
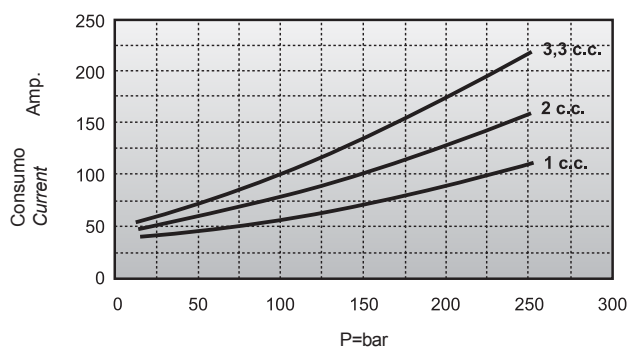
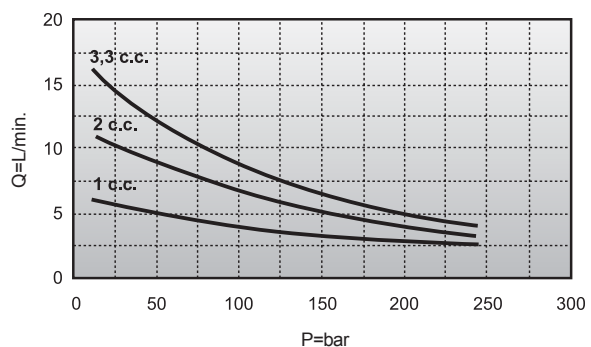
Secciones mínimas de cable recomendadas (como norma general aconsejamos longitudes de hasta 10m. máximo) Min. recommended sections for tube 10mts. max.	Motores 12V D.C. Motors 12V D.C.	Motores 24V D.C. Motors 24V D.C.
Cable positivo, de batería a motor Pos. cable, battery to motor	50 mm²	35 mm²
Cable negativo, de batería a motor Neg. cable, battery to motor		
Cable positivo de batería a relé Pos. cable battery to relay	2.5 mm²	2.5 mm²
Cable negativo de batería a relé Neg. cable battery to relay		

Diagramas Performance curves

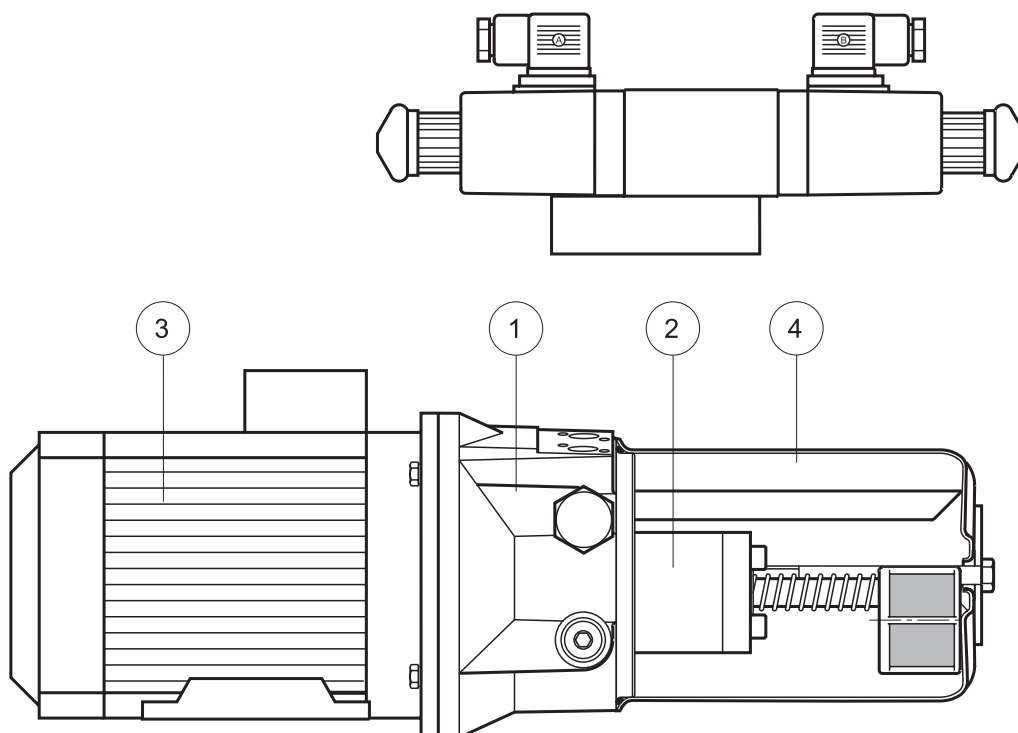
Motor de 12V C.C.
Motor 12V D.C.



Motor de 24V C.C.
Motor 24V D.C.



Estos valores han sido obtenidos con una viscosidad de 30 cSt.
y una temperatura del aceite de 40°C.
The performance curves shown are based on oil with a
viscosity of 30 cSt. Oil temperature 40 deg. C.



1	P B R	4	A 5 0 A 0 9	B	1 2	C 0 0 2 4 - 5 0	
1	2	3	4	5	6	7	

1	Sistema de control y forma de montaje <i>Control system and modular unit options</i>
2	Caudal bomba <i>Pump displacement</i>
3	Tipo motor y tensión <i>Suitable for motor type and motor voltage</i>
4	Tipo depósito <i>Tank type</i>
5	Válvula limitadora <i>Relief valve</i>
6	Xiclé y tensión válvula bajada / Tensión y frecuencia electroválvulas <i>Orifice & voltage lowering valve / Valve solenoid voltage</i>
7	Datos adicionales <i>Additional data</i>

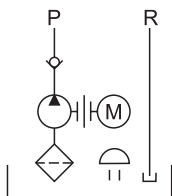
Ejemplo: La referencia indica un grupo motobomba con válvula de retención eléctrica de 24V 50Hz con pulsador y normalmente cerrada. Cilindrada de la bomba 0,83 cm³/v. Con un motor eléctrico de corriente alterna de 220-380V. 50Hz 1500 RPM y 1CV. de potencia. El depósito es de 2 litros y el taraje de la válvula limitadora estará entre 80-175 bar. Va sin xiclé de bajada.

Example: The part number given indicates power pack with n/c 24V. 50Hz. solenoid operated check valve with over-ride. Pump displacement 0,83 cm³/rev. 220-380V. 50Hz. electric motor 1HP, 1500 RPM. Tank of 2 litres and relief valve range 80-175 bar no lowering fitted.

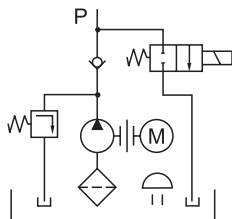
Sistema de control Control system

1

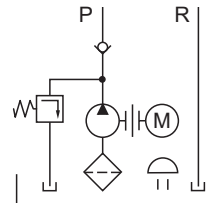
0 Sin válvulas
No valves



1 Válvula retención eléctrica
Solenoid lowering valve



7 Sólo válvula limitadora
Relief valve only



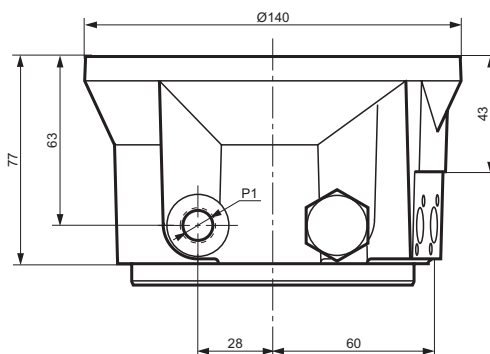
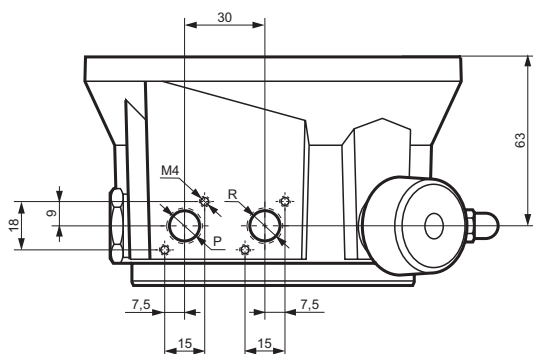
Soportes / Support

P = Salida presión / Pressure port 1/4" BSP

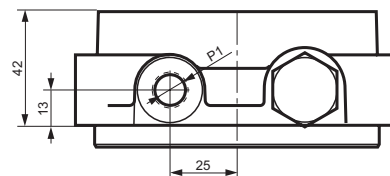
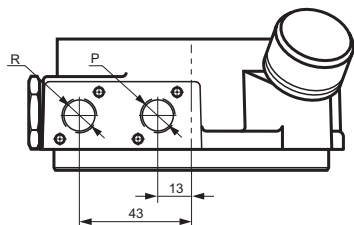
R = Retorno / Return 1/4" BSP

P1 = Presión opcional / Optional pressure port 1/4 " BSP

Motores AC / Motors AC



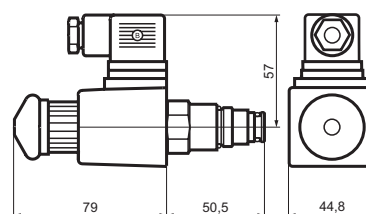
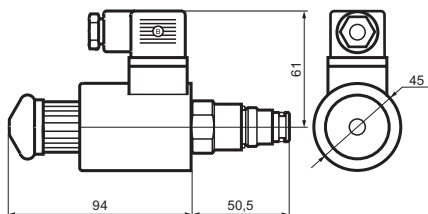
Motores DC / Motors DC



Válvula retención eléctrica / Solenoid lowering valve

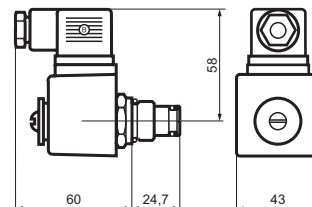
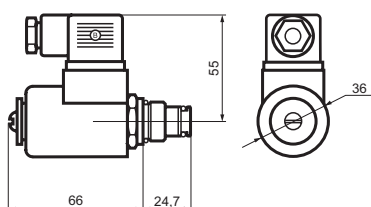
M8746/C* (DC) Normalmente cerrado / (DC) Normally closed
M9491/C* (DC) Normalmente abierto / (DC) Normally open

M8747/R* (AC) Normalmente cerrado / (AC) Normally closed



M8649/C* (CC) Normalmente cerrado / (DC) Normally closed

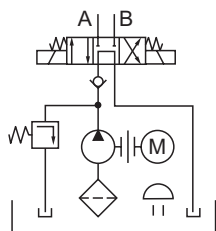
M9073/R* (CC) Normalmente cerrado / (DC) Normally closed



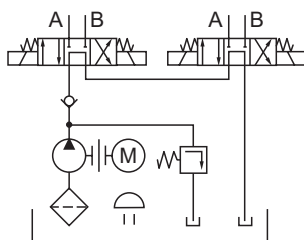
Sistema de control Control system

2

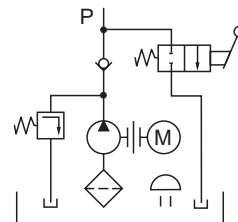
2 1 electroválvula TN6 forma 1
1 CETOP 3 valve, spool 1



3 2 electroválvulas TN6 forma 1
2 CETOP 3 valves, spool 1

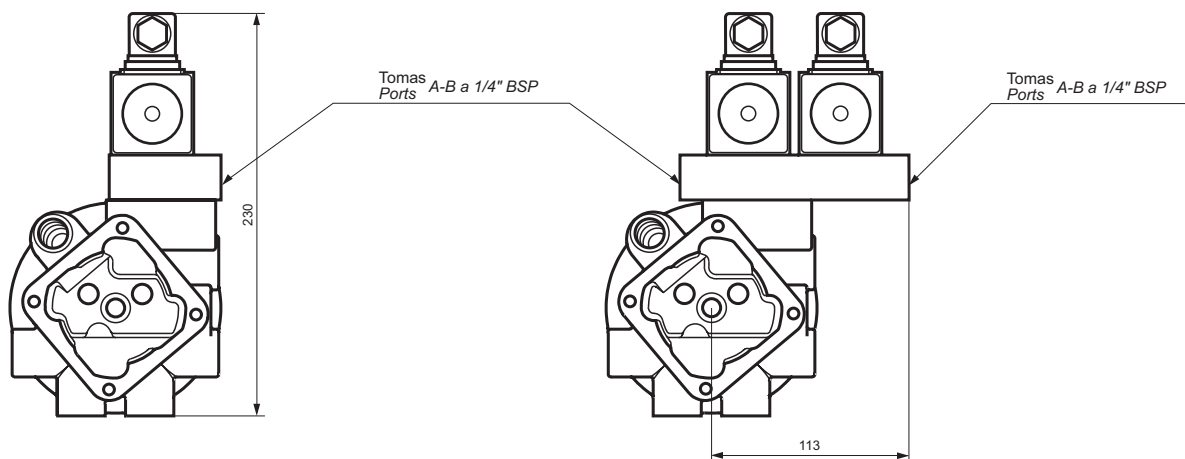


4 Válvula bajada manual
Manual lowering valve

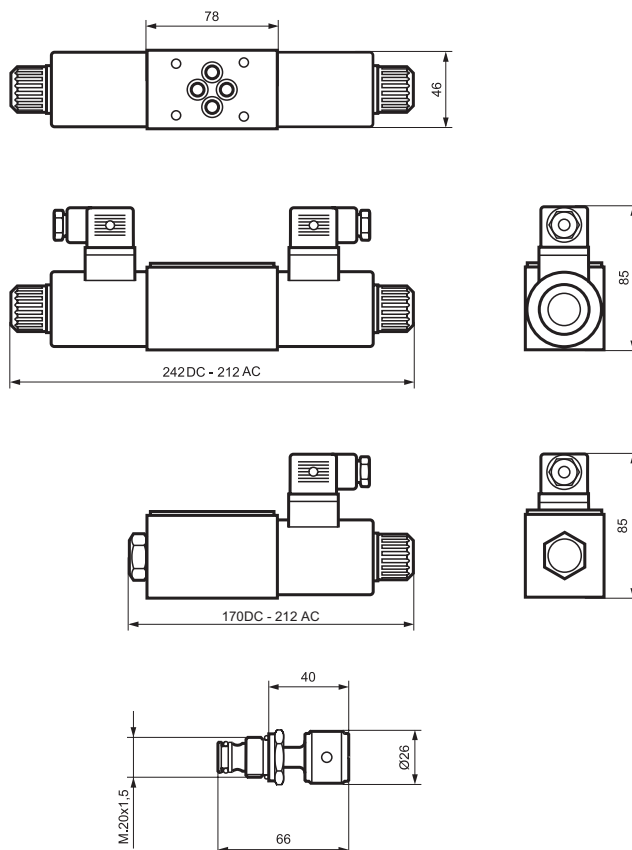


1 Electroválvula TN6 / 1 CETOP 3 valve

2 Electroválvulas TN6 / 2 CETOP 3 valve



Electroválvula TN6 / CETOP 3 valve



Además de los sistemas de control representados, podemos suministrar una gran diversidad de montajes de circuitos. Rogamos consulten a nuestro departamento comercial.
In addition to the versions shown, we can supply power packs with a wide range of different circuits for specific applications. Please contact us with details of your requirements.

Forma de montaje Modular unit options

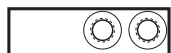
P B R

PBE Motor y bomba con depósito Motor and pump with integral tank.

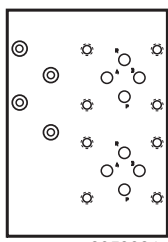
P = Salida presión / Pressure port
R = Retorno / Return

Nivel aceite
Oil level

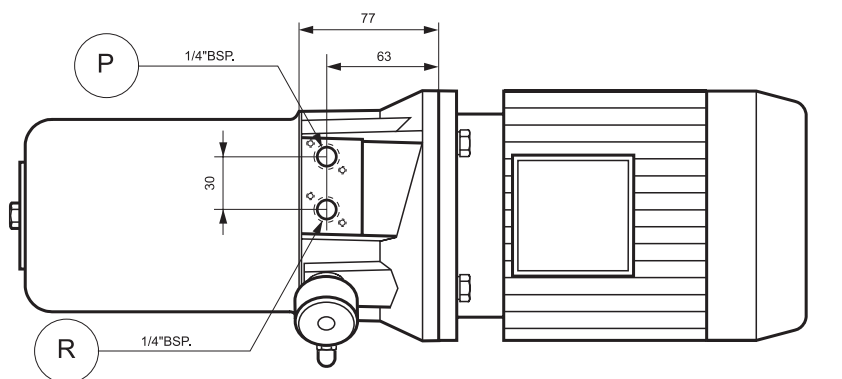
Fijación según tipo motor / Motor fixing



8953083



8953084



PBP Válvula de retención eléctrica con pulsador. Solenoid lowering valve with over-ride.

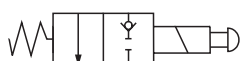
Normalmente cerrada / Normally closed



M8746/C*
M8747/R*

PBR Válvula de retención eléctrica con pulsador. Solenoid lowering valve with over-ride.

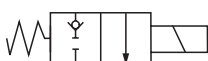
Normalmente abierta / Normally open



M9491/C*

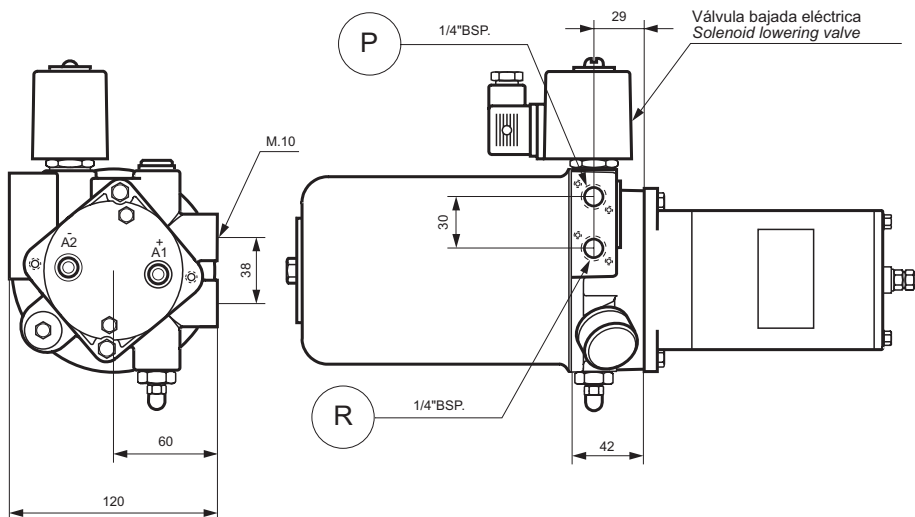
PBS Válvula de retención eléctrica sin pulsador. Solenoid lowering valve without over-ride.

Normalmente cerrada / Normally closed



M8649/C*
M9073/R*

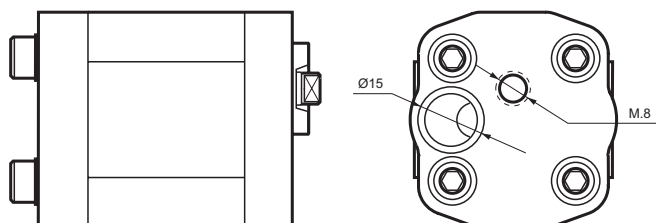
P = Salida presión / Pressure port
R = Retorno / Return



Tipo bomba Pump type

4

Caudal por revolución Pump displacement		Referencia Reference
1	0,33 cm ³ /v.	1M0,5IQ12T-S1
2	0,5 cm ³ /v.	1M0,75IQ12T-S1
3	0,66 cm ³ /v.	1M1IQ12T-S1
4	0,83 cm ³ /v.	1M1,25IQ12T-S1
5	1 cm ³ /v.	1M1,5IQ12T-S1
6	1,33 cm ³ /v.	1M2IQ12T-S1



Tipo motor y tensión Motor type and voltage



A 5 0 A 0 9



Montaje con motor / With motor

Tipo corriente motor Suitable for motor type

A

A	Alterna / A.C.
C	Continúa / D.C.

Tensión y frecuencia del motor Motor voltage

5 0

12	12V. D.C. / 12V. D.C.
24	24V. D.C. / 24V. D.C.
50	220/380V - 50Hz trifásica / 3 Ph.
60	220/380V - 60Hz trifásica / 3 Ph.
110	110V C.A. monofásica / 1 Ph.
220	220V C.A. monofásica / 1 Ph.

Velocidad Speed

A

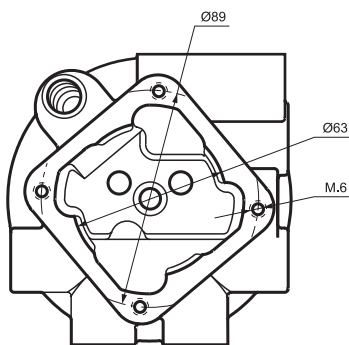
A	1500 RPM.
B	3000 RPM.
C	Velocidad variable D.C. Variable speed D. C.

Montaje sin motor / Without motor

Acoplamiento Coupling

00	Motor D.C. / D.C. Motor
11	Ø11
14	Ø14
19	Ø19

Para motor D.C / Motor for D.C

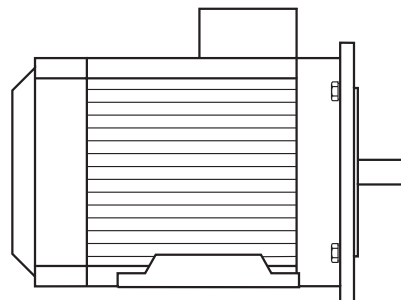


8656011



8656090

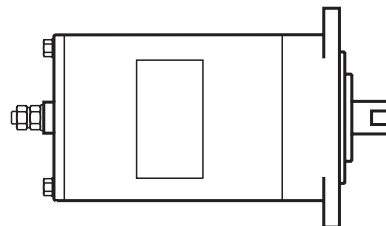
Potencias, dimensiones y capacidades según IEC 60072
Power, dimensions and capacity to IEC 60072



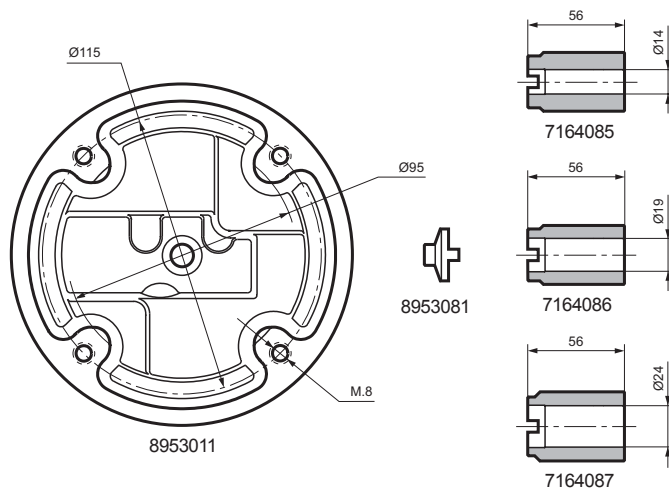
Potencia motor en CV Motor power HP

0 9

01	0,25 CV / HP	Tipo Frame 71
02	0,33 CV / HP	
04	0,5 CV / HP	
07	0,75 CV / HP	
09	1 CV / HP	
10	Motor D.C / D.C	



Motor tipo 71 / Motor type 71



								B				-
--	--	--	--	--	--	--	--	---	--	--	--	---

Technical drawing of a wheel. The left view is a side profile showing a rectangular body with rounded corners and a central hub. Dimension A is indicated by a horizontal arrow at the bottom, representing the width of the wheel. The right view is a top-down circular view showing concentric circles representing the wheel's rim and hub. Dimension B is indicated by a diagonal arrow across the outer rim, representing the diameter.

Note: When a power pack is ordered without tank (S) the 1,3 litre tank accessories will be supplied.

[illegible]Forma de regulación / *Adjusting type*

								C	0	0	2	4	-	5	0	-
--	--	--	--	--	--	--	--	---	---	---	---	---	---	---	---	---

Tensión y frecuencia electroimán <i>Valve solenoid voltage</i>		2 4 - 5 0
12	12V C.C.	
24	24V C.C.	
24-50	24V - 50Hz.	
48-50	48V - 50Hz.	
110-50	110V - 50Hz.	
220-50	220V - 50Hz.	

[illegible]

Datos técnicos

Technical data

Generalidades

General data

Montaje <i>Mounting positions</i>	Horizontal o vertical <i>Horizontal or vertical</i>
Accionamiento válvulas <i>Control systems</i>	Eléctrico o manual <i>Solenoid or manual</i>
Tiempos de conexión <i>On-duty time</i>	Ver diagramas <i>See performance curves</i>

Hidráulicos

Hydraulic data

Desplazamiento volumétrico <i>Pump displacement</i>	0,33 - 0,5 - 0,66 - 0,83 - 1 cm ³ /V - cc/r
Presión máx. trabajo en bomba <i>Pump max. working pressure</i>	225 bar
Presión máx. de retención en toma <i>Max. load induced pressure</i>	210 bar Acc.tipo 1 <i>Control system 1</i>
Presión máx. en tomas <i>Max. load induced pressure</i>	225 bar Acc.tipos 2-3-4 <i>Control systems</i>
Aceite recomendado <i>Fluid to be used</i>	ISO 6743 tipo. HM, HV ó HG
Viscosidad <i>Viscosity range</i>	ISO 3448 cat. VG32-VG46
Grado de limpieza del aceite <i>Recommended fluid cleanliness</i>	19/16s/. ISO 4406 10s/. NAS 1638
Gama temperaturas fluido hidráulico <i>Hydraulic fluid temperatura range</i>	-20°C...+80°C

Eléctricos

Electrical

Motores <i>Motors</i>		
Tensión <i>Voltage</i>		12V - 24V D.C. 220/380V - 50 Hz 250/440V - 60 Hz 110V-220V AC Monofásica <i>Single-phase</i>
Consumo bobina relé D.C. <i>D.C. starter switch current</i>		12V - 2,6 Amp. 24V - 1,3 Amp.
Consumo motor D.C. <i>D.C. motor current</i>		Ver gráficos <i>See performance curves</i>
Electroválvulas <i>Directional control valves</i> (consumo por electroimán) <i>(consumption per Solenoid)</i>		
Corriente continua <i>D.C.</i>		38 W
Corriente alterna <i>A.C.</i>	Circuito abierto <i>Open circuit</i>	180VA
	Circuito cerrado <i>Closed circuit</i>	65V
Gama de tensiones para D.C. <i>D.C. Voltage range</i>		12V - 24V - 48V
Gama tensiones para A.C. <i>A.C Voltage range</i>		24V - 48V - 110V - 220V (50Hz) 115V - 230V (60Hz)
Protección según DIN-40050 <i>Protection to</i>		IP - 65
Tolerancia de la tensión <i>Voltage tolerance</i>		Unom ± 10%

Tiempos de conexión

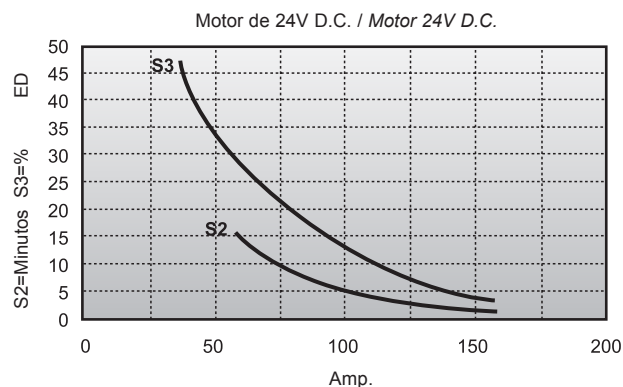
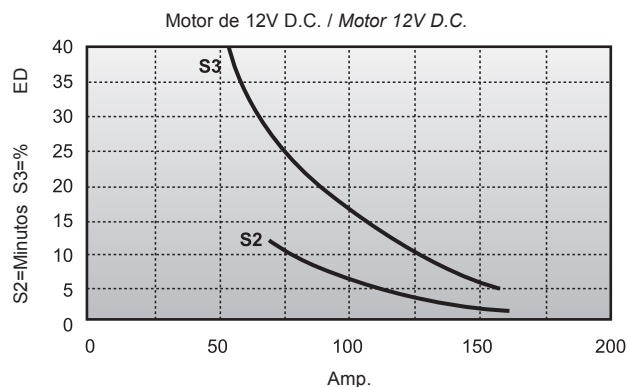
Connection times

S2 representa el n° máx. de minutos seguidos que puede estar el motor conectado.

S2 is the number of minutes the motor can be run (from cold).

S3 representa el porcentaje de tiempo que el motor puede estar conectado durante un ciclo.

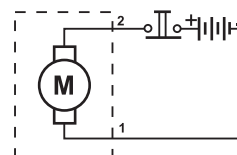
S3 is the percentage of time that the motor can be connected during a cycle.



Forma correcta de efectuar el conexionado en un motor de D.C.
No usar el chasis como conductor.

Correct method to connect a D. C. motor.

The chassis of a vehicle should not be used for the one line.



Secciones mínimas de cable recomendadas

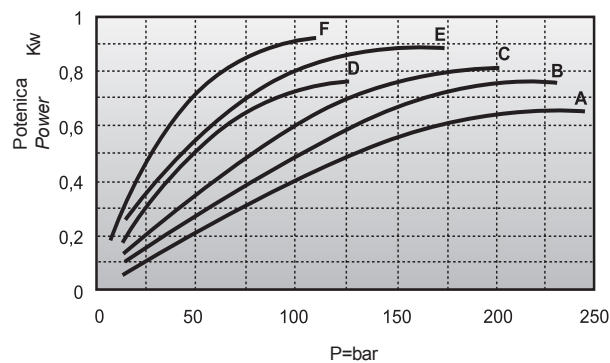
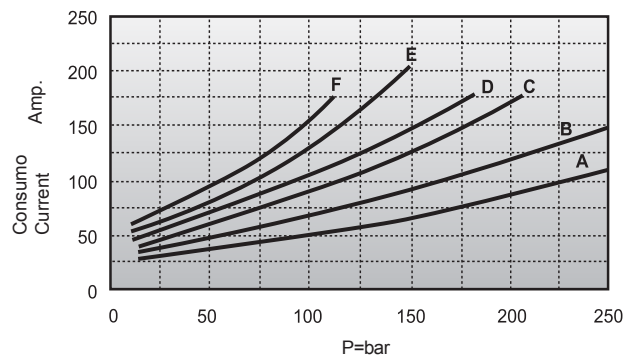
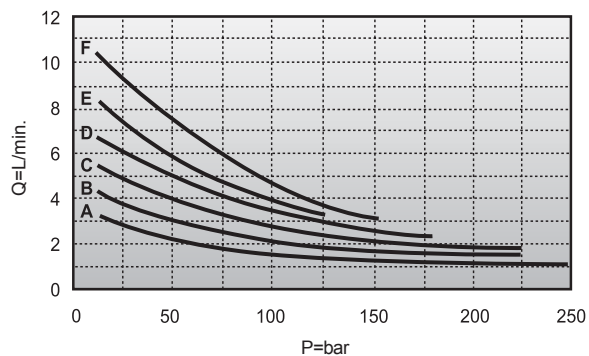
(como norma general aconsejamos longitudes de hasta 10m. máximo)

Min. recommended sections for tube 10mts. max.

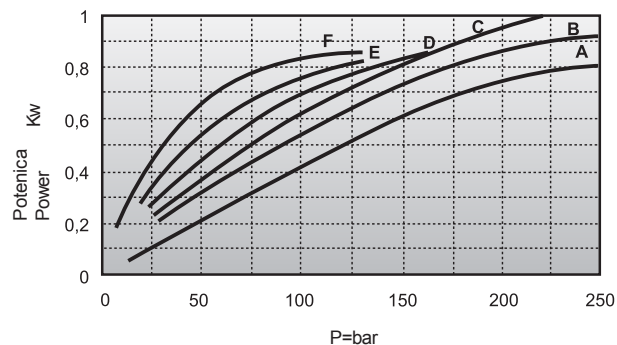
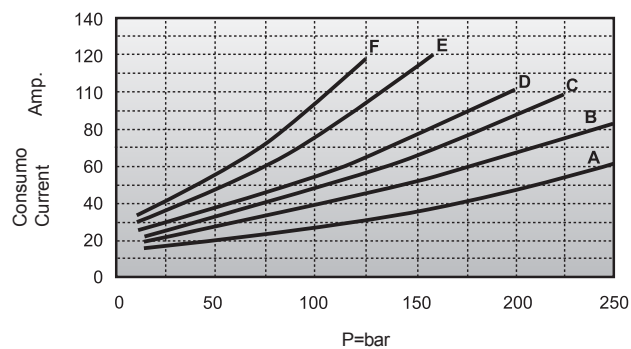
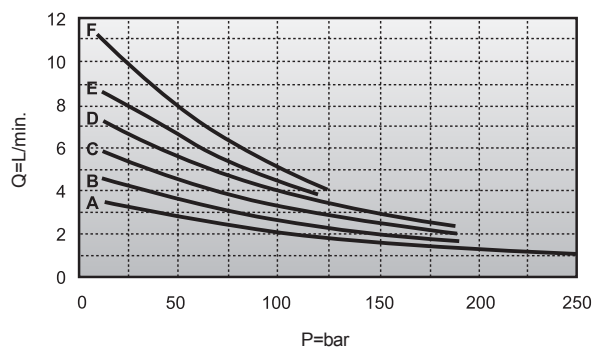
Cable positivo, de batería a motor <i>Pos. cable, battery to motor</i>	Motores 12V D.C. <i>Motors 12V D.C.</i>	Motores 24V D.C. <i>Motors 24V D.C.</i>
Cable negativo, de batería a motor <i>Neg. cable, battery to motor</i>	35 mm ²	20 mm ²

Diagramas Performance curves

Motor de 12V D.C.
Motor 12V D.C.



Motor de 24V D.C.
Motor 24V D.C.



A= 0,33 c.c.
B= 0,5 c.c.
C= 0,66 c.c.
D= 0,83 c.c.
E= 1 c.c.
F= 1,33 c.c.

Estos valores han sido obtenidos con una viscosidad de 30 cSt.
y una temperatura del aceite de 40°C.
The performance curves shown are based on oil with a viscosity of 30 cSt.
Oil temperature 40 deg. C.