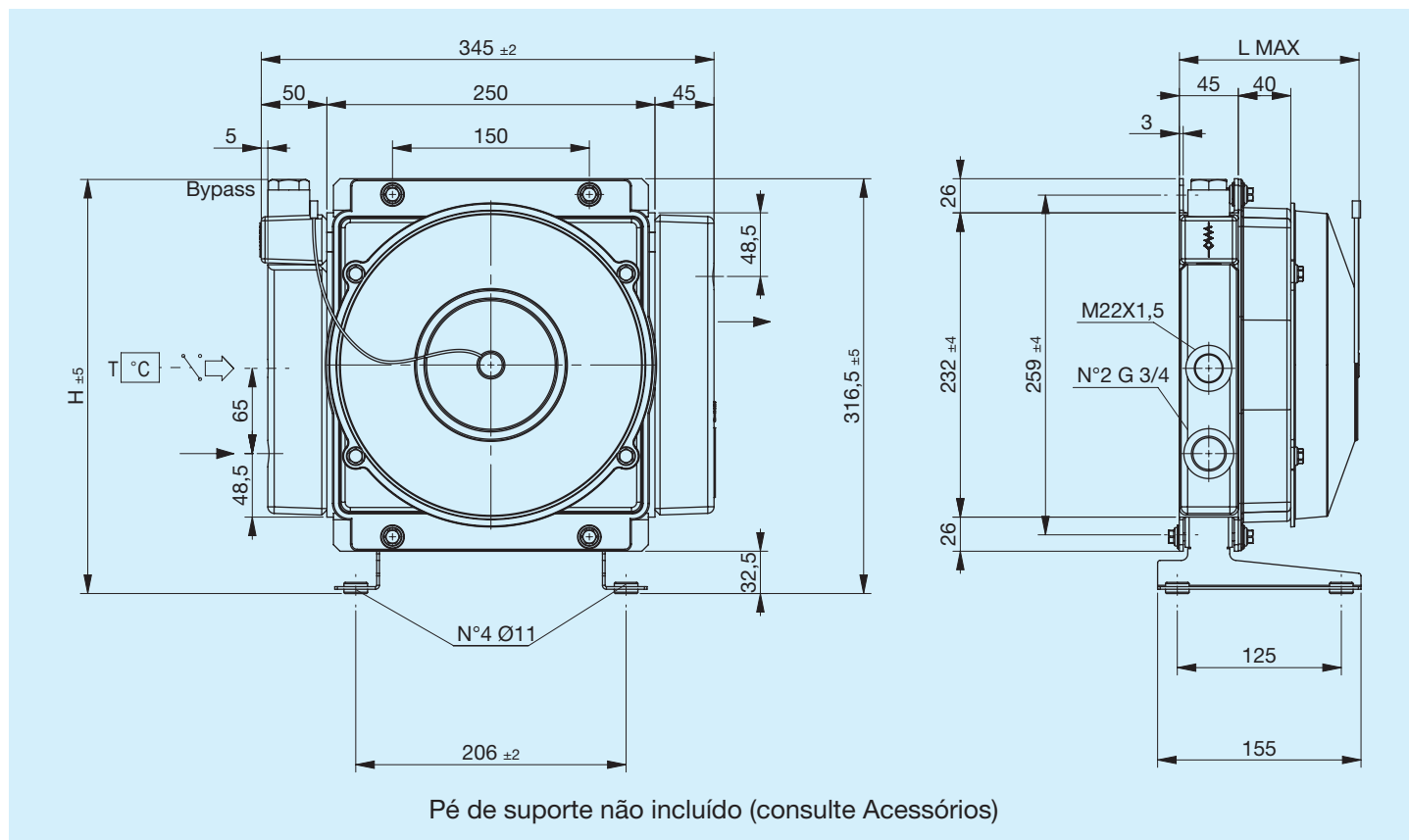


## A20

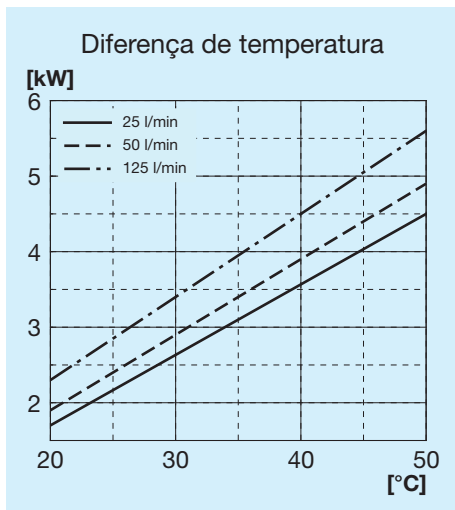


Antes de iniciar a utilização, leia atentamente o documento INSTRUÇÕES GERAIS DE USO PARA PERMUTADORES DE CALOR

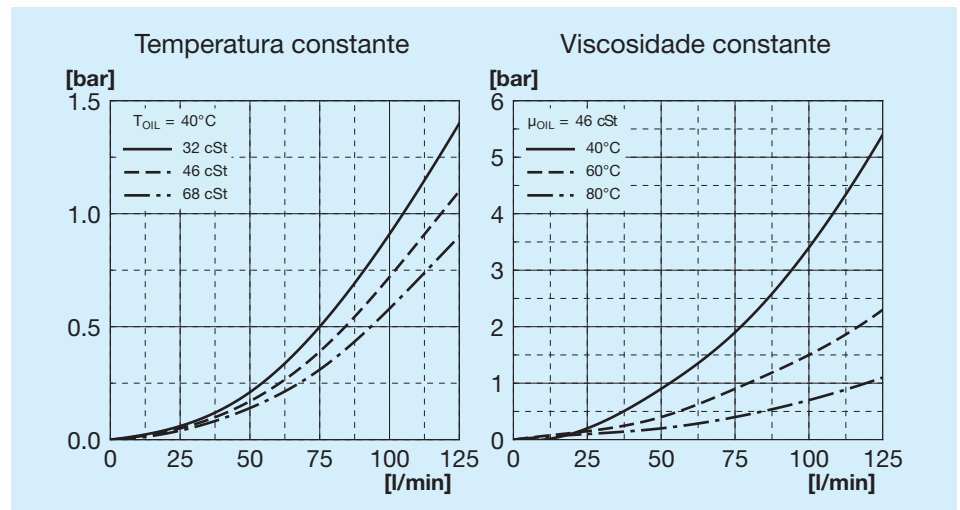


Código	Descrição	Ø Ventilador mm	Caudal de ar m³/h	Tensão V	Corrente A	L Máx mm	H mm	Massa Kg	Capacidade l
FR633030003	A20 1EAP 12V	225	920	12	7.4	140	317.5	4.7	1.45
FR633030004	A20 1ESP 12V	225	1070	12	8.4	140	317.5	4.7	1.45
FR633030013	A20 1EAP 24V	225	980	24	4.1	140	317.5	4.7	1.45
FR633030014	A20 1ESP 24V	225	1100	24	4.3	140	317.5	4.7	1.45
FR633033103	A20 1EAP 12V bypass T15 V.T. 3 bar 60°C	225	920	12	7.4	140	317.5	4.7	1.45
FR633033104	A20 1ESP 12V bypass T15 V.T. 3 bar 60°C	225	1070	12	8.4	140	317.5	4.7	1.45
FR633031005	A20 1EAP 12V bypass T15 VNR 4.5 bar	225	920	12	7.4	140	301.5	4.7	1.45
FR633031004	A20 1ESP 12V bypass T15 VNR 4.5 bar	225	1070	12	8.4	140	301.5	4.7	1.45
FR633033113	A20 1EAP 24V bypass T15 V.T. 3 bar 60°C	225	980	24	4.1	140	317.5	4.7	1.45
FR633033114	A20 1ESP 24V bypass T15 V.T. 3 bar 60°C	225	1100	24	4.3	140	317.5	4.7	1.45
FR633031015	A20 1EAP 24V bypass T15 VNR 4.5 bar	225	980	24	4.1	140	301.5	4.7	1.45
FR633031014	A20 1ESP 24V bypass T15 VNR 4.5 bar	225	1100	24	4.3	140	301.5	4.7	1.45

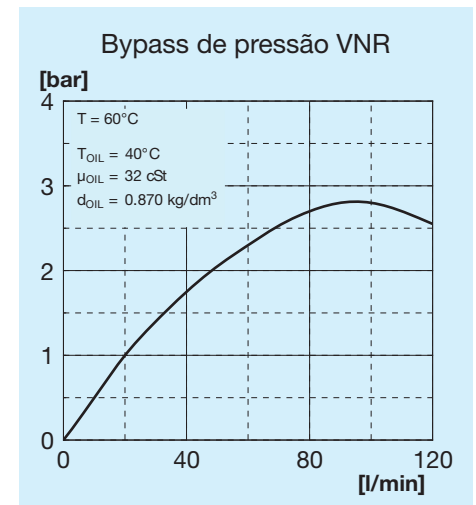
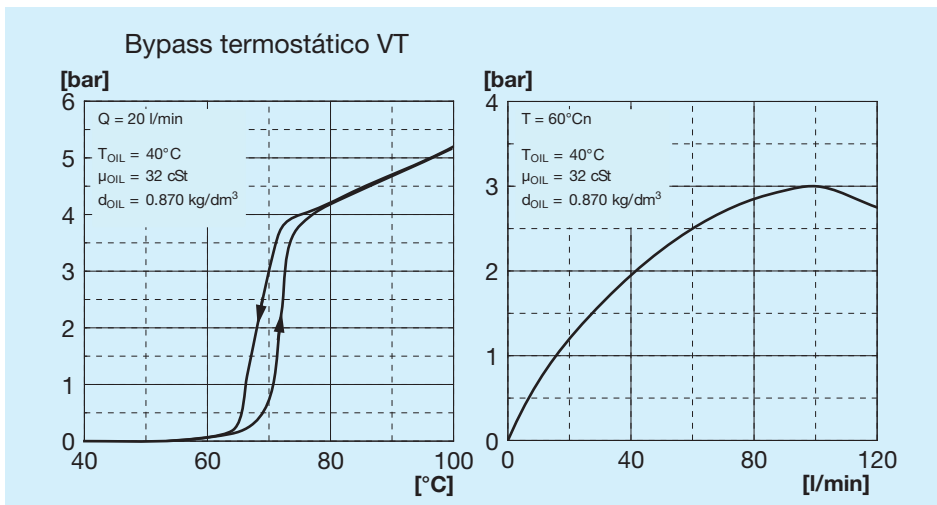
## Potência térmica



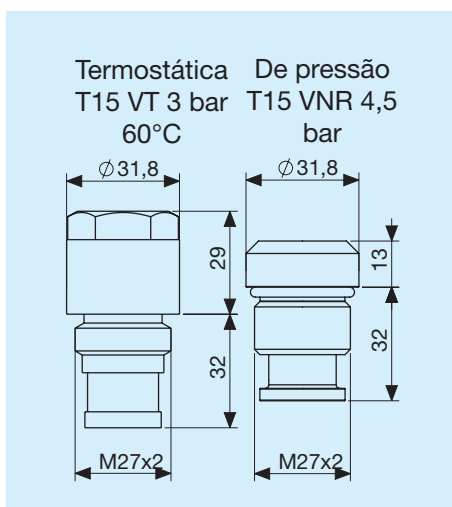
## Perda de carga passagem no radiador



## Perda de carga passagem bypass

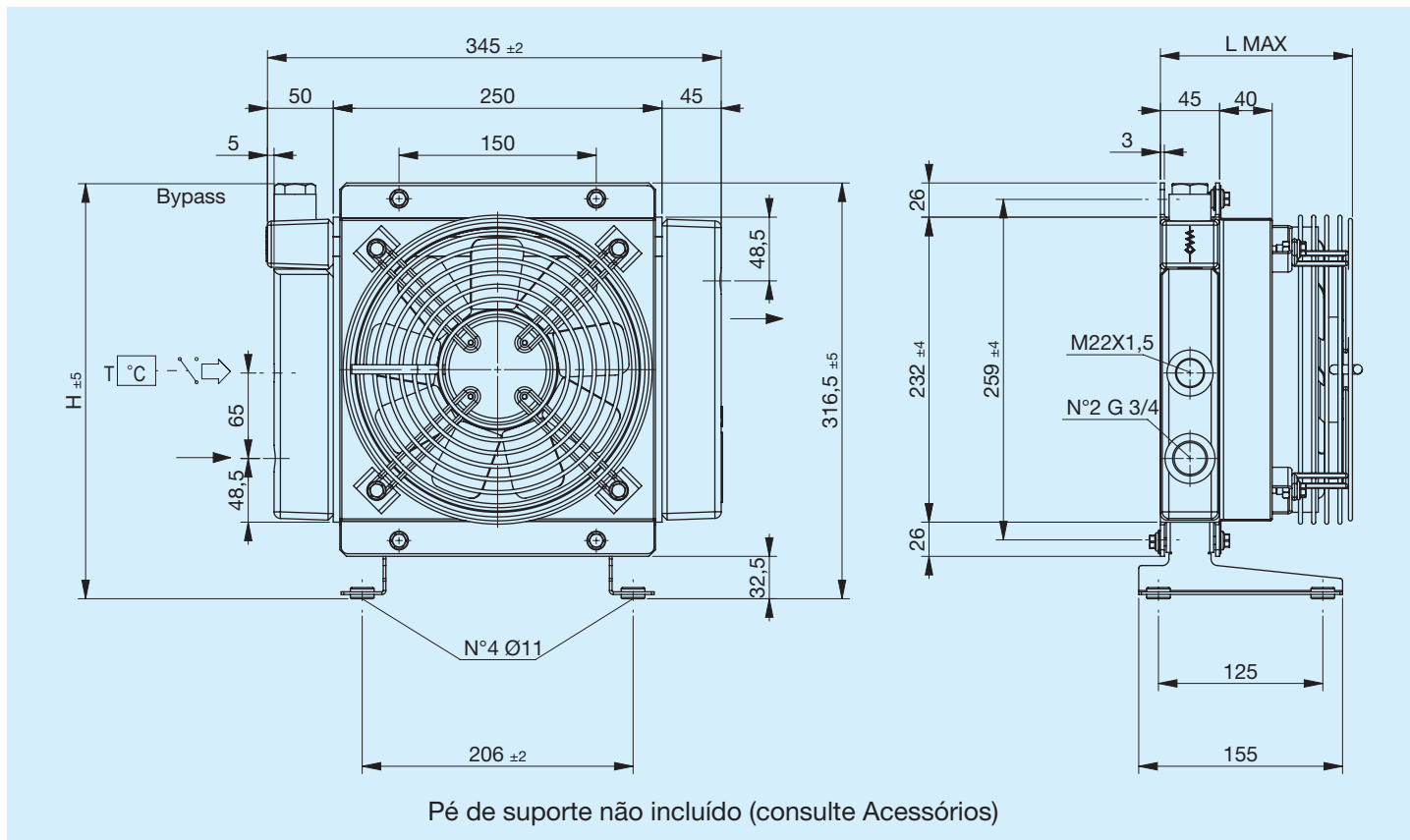


## Válvula bypass



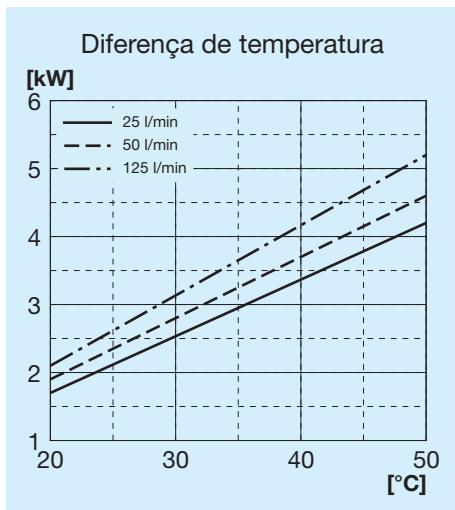
## Legenda

A20	Tipo de permutador
1E	1 Ventilador elétrico
A	Aspirante
S	Soprador
AP	Aspirante potencializado
SP	Soprador potencializado
AX	Aspirante superpotencializado
SX	Soprador supertencializado
12V	Tensão do ventilador elétrico
24V	Tensão do ventilador elétrico
T15 VT	Válvula bypass termostática 3 bar 60°C
T15 VNR	Válvula bypass de pressão 4,5 bar

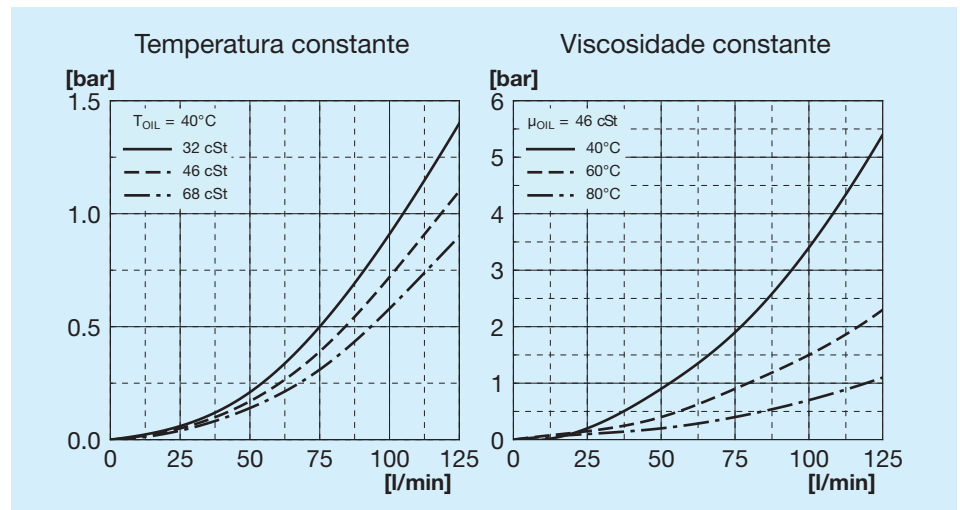


Código	Descrição	Ø Ventilador mm	Potência W	Frequência Hz	Velocidade de min <sup>-1</sup>	Proteção IP	L Máx mm	H mm	Massa Kg	Capacidade l
FR633030031	A20 1EA 230V	200	78	50 60	2600 2900	44	146	317.5	7	1.45
FR633030032	A20 1ES 230V	200	78	50 60	2600 2900	44	146	317.5	7	1.45
FR633030021	A20 1EA 400V	200	70	50 60	2600 2900	44	146	317.5	7	1.45
FR633030022	A20 1ES 400V	200	70	50 60	2600 2900	44	146	317.5	7	1.45
FR633033131	A20 1EA 230V bypass T15 V.T. 3 bar 60°C	200	78	50 60	2600 2900	44	146	316	7	1.45
FR633033132	A20 1ES 230V bypass T15 V.T. 3 bar 60°C	200	78	50 60	2600 2900	44	146	316	7	1.45
FR633031031	A20 1EA 230V bypass T15 VNR 4.5 bar	200	78	50 60	2600 2900	44	146	300	7	1.45
FR633031032	A20 1ES 230V bypass T15 VNR 4.5 bar	200	78	50 60	2600 2900	44	146	300	7	1.45
FR633033121	A20 1EA 400V bypass T15 V.T. 3 bar 60°C	200	70	50 60	2600 2900	44	146	316	7	1.45
FR633033122	A20 1ES 400V bypass T15 V.T. 3 bar 60°C	200	70	50 60	2600 2900	44	146	316	7	1.45
FR633031021	A20 1EA 400V bypass T15 VNR 4.5 bar	200	70	50 60	2600 2900	44	146	300	7	1.45
FR633031022	A20 1ES 400V bypass T15 VNR 4.5 bar	200	70	50 60	2600 2900	44	146	300	7	1.45

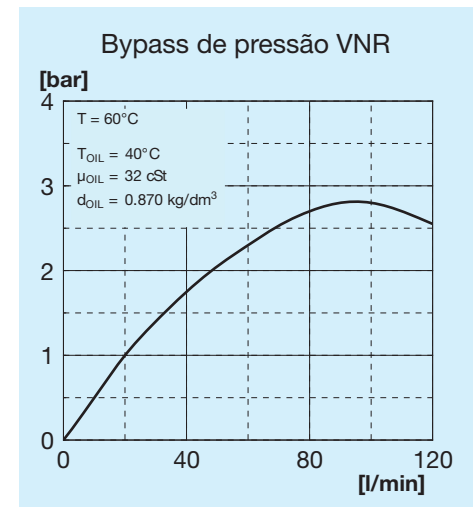
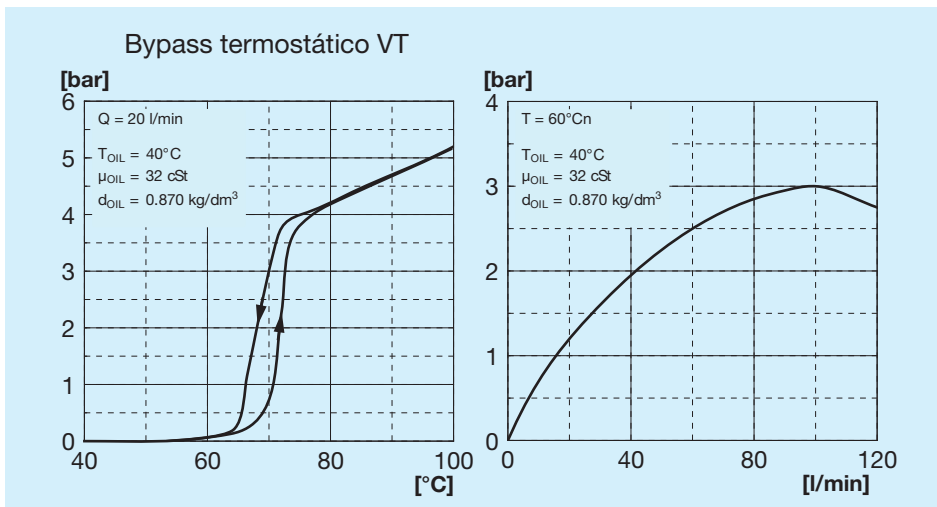
## Potência térmica



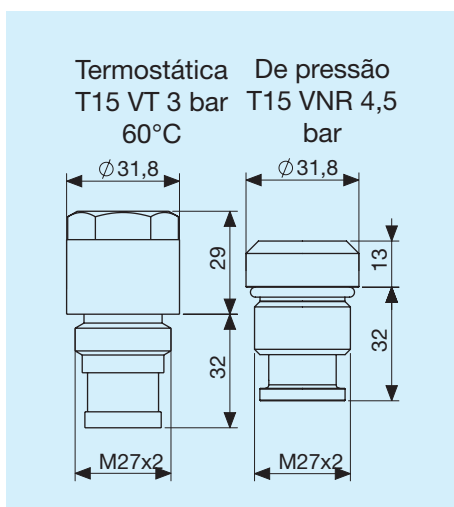
## Perda de carga passagem no radiador



## Perda de carga passagem bypass

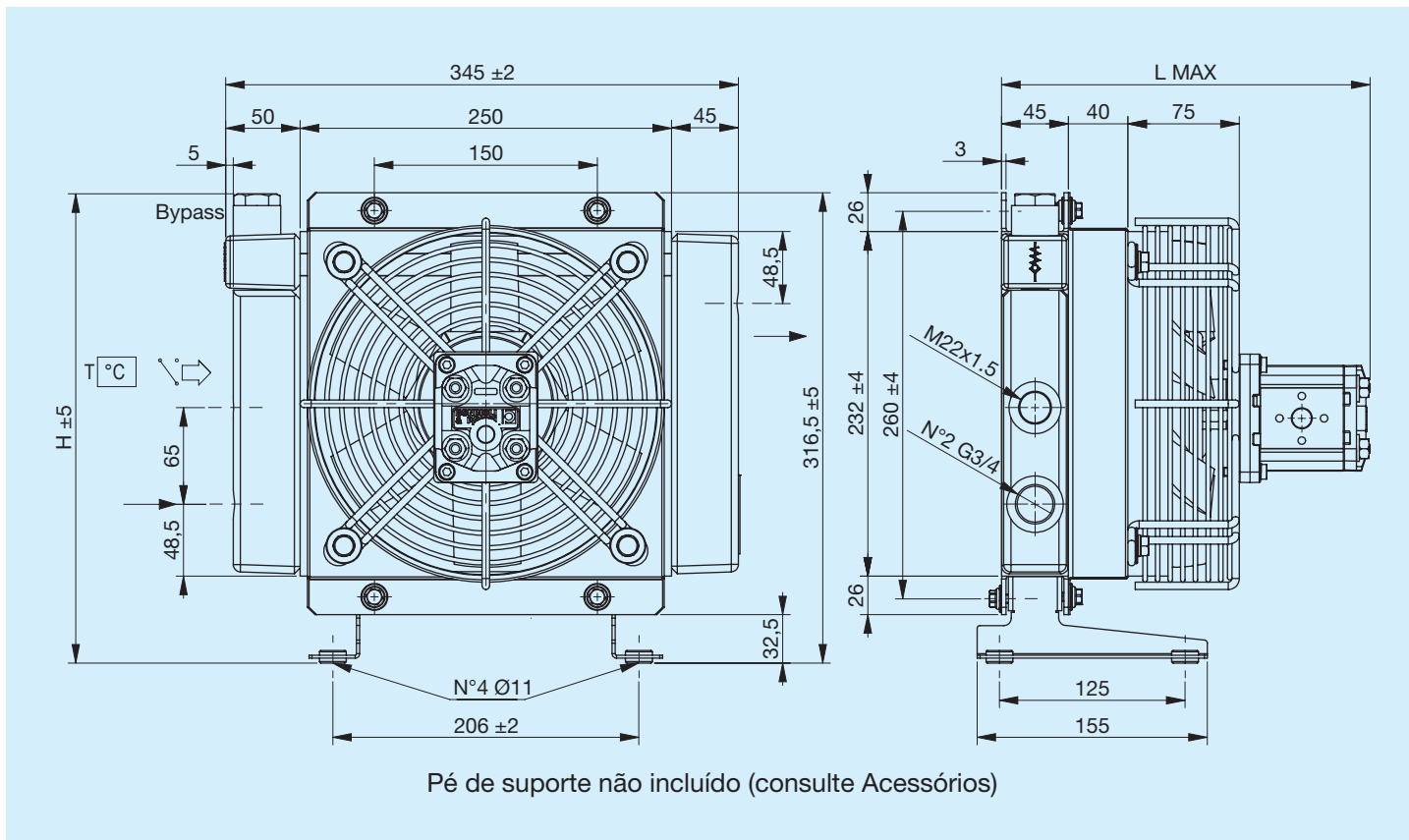


## Válvula bypass



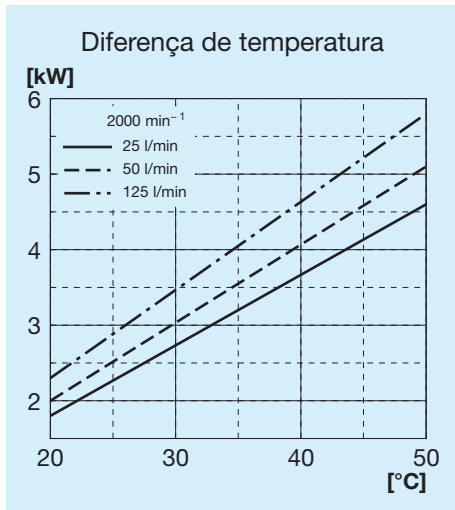
## Legenda

A20	Tipo de permutador
1E	1 Ventilador elétrico
A	Aspirante
S	Soprador
230V	Tensão do ventilador elétrico
400V	Tensão do ventilador elétrico
T15 VT	Válvula bypass termostática 3 bar 60°C
T15 VNR	Válvula bypass de pressão 4,5 bar

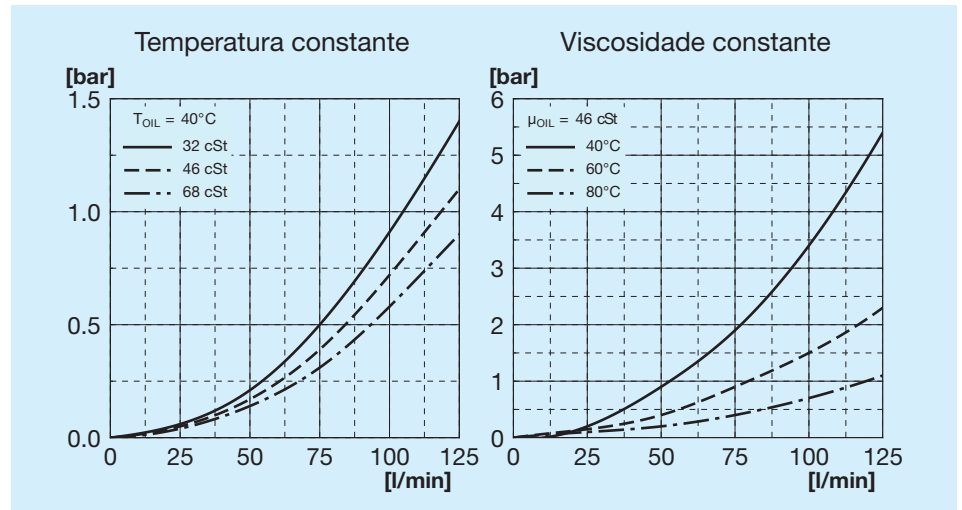


Código	Descrição	Ø Ventilador mm	Cilindrada do motor cm <sup>3</sup> /h	L Máx mm	H mm	Massa Kg	Capacidade l
FR634033113	A20 IA MOT.HIDR. GR1 bypass T15 V.T. 3 bar 60°C	220	6	248	316	7	1.45
FR634033114	A20 IS MOT.HIDR. GR1 bypass T15 V.T. 3 bar 60°C	220	6	248	316	7	1.45
FR634031013	A20 IA MOT.HIDR. GR1 bypass T15 VNR 4.5 bar	220	6	248	300	7	1.45
FR634031014	A20 IS MOT.HIDR. GR1 bypass T15 VNR 4.5 bar	220	6	248	300	7	1.45
FR634030013	A20 IA MOT.HIDR. GR1	220	6	248	317.5	7	1.45
FR634030014	A20 IS MOT.HIDR. GR1	220	6	248	317.5	7	1.45

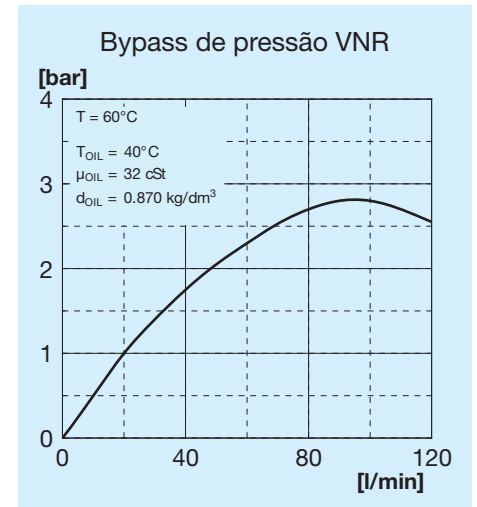
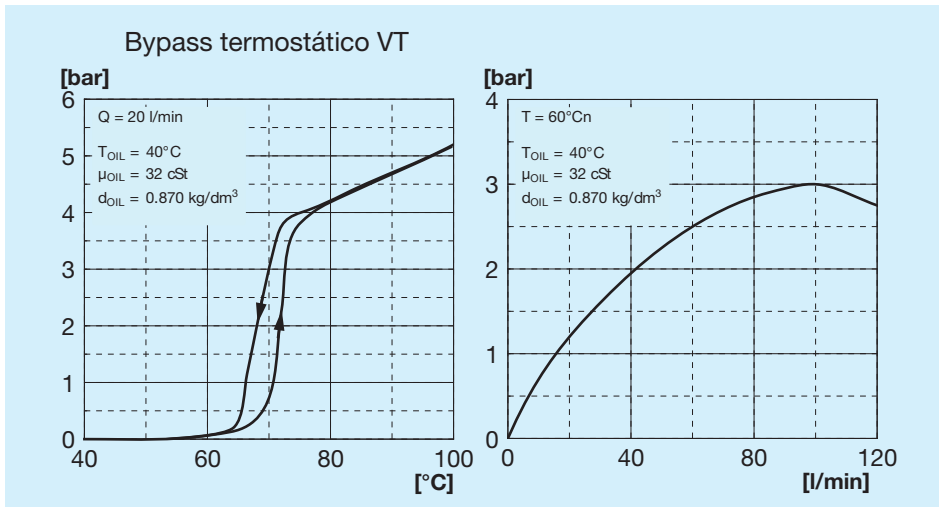
## Potência térmica



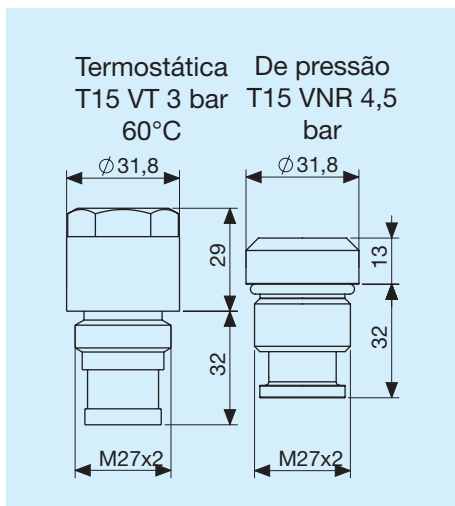
## Perda de carga passagem no radiador



## Perda de carga passagem bypass

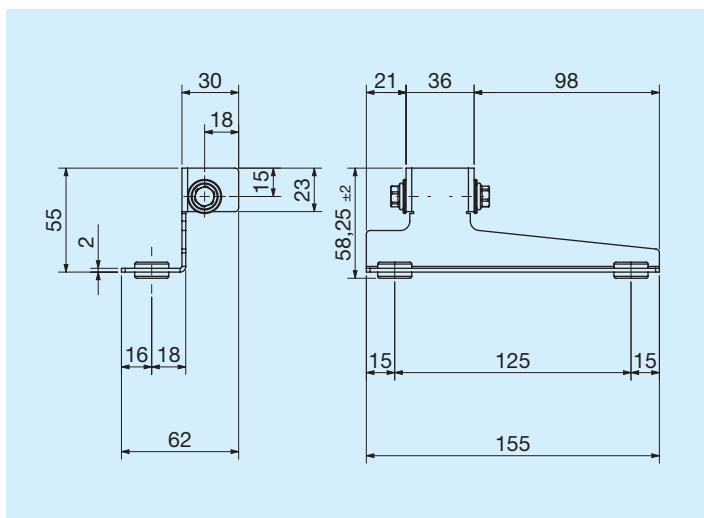


## Válvula bypass

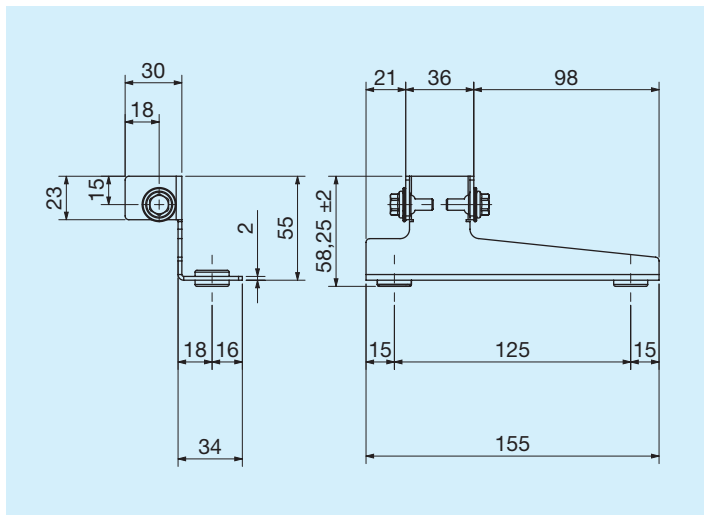


## Legenda

A20	Tipo de permutador
IA	Hidráulico Aspirante
IS	Hidráulico Soprador
PRED.	Com suporte do motor
MOT. HIDR.	Com motor com suporte integrado
GR1	Grupo 1
GR2	Grupo 2
T15 VT	Válvula bypass termostática 3 bar 60°C
T15 VNR	Válvula bypass de pressão 4,5 bar



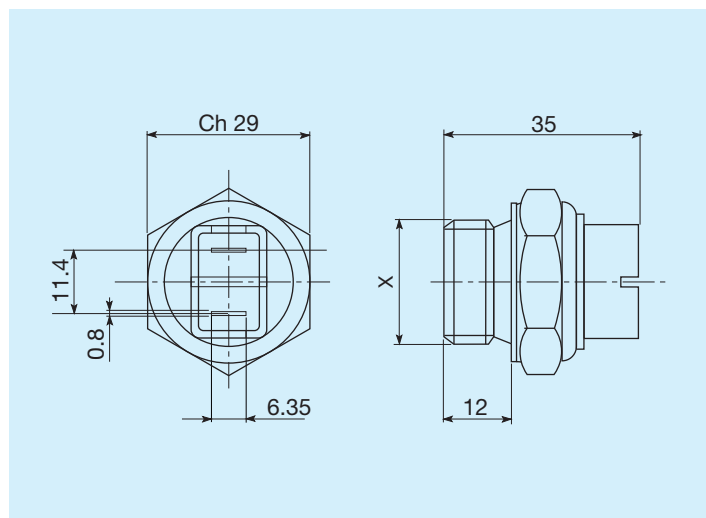
	Código
Pé de suporte esquerdo	FR290000019R



	Código
Pé de suporte direito	FR290000020R

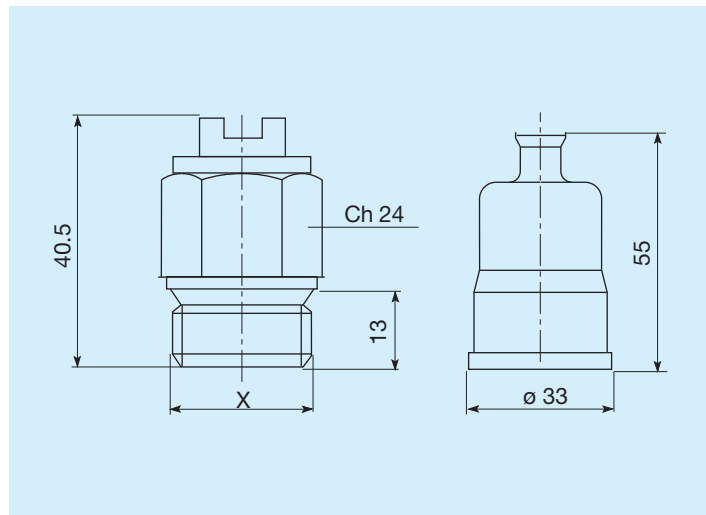


## Termostato



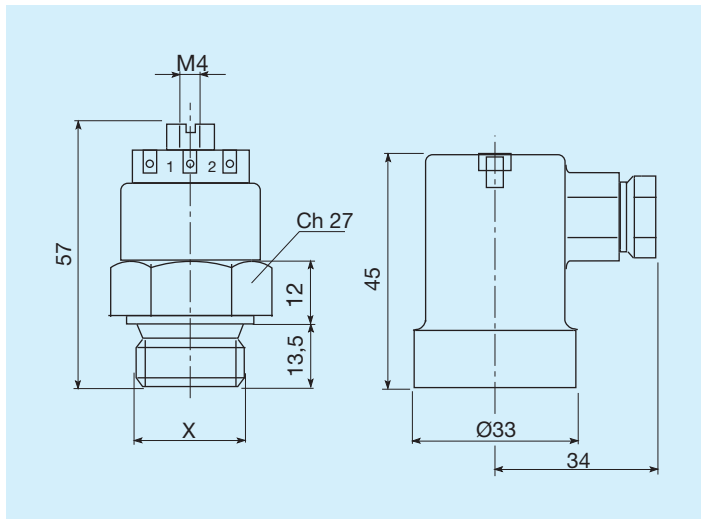
Temperaturas de intervenção C°	Roscagem	Código
45 - 35	M22x1,5	FR361104535R
60 - 50	M22x1,5	FR361106050R
80 - 70	M22x1,5	FR361108070R
82 - 68	M22x1,5	FR361108268R
85 - 76	M22x1,5	FR361108576R

## Termostatos protegidos IP54



Temperaturas de intervenção C°	Roscagem	Código
45 - 35	M22x1,5	FR361124535R
50 - 40	M22x1,5	FR361125040R
60 - 50	M22x1,5	FR361126050R
70 - 60	M22x1,5	FR361127060R
80 - 70	M22x1,5	FR361128070R

## Termostatos protegidos IP65



Temperaturas de intervenção C°	Roscagem	Código
45 - 35	M22x1,5	FR361154535R
47 - 36	M22x1,5	FR361155040R
60 - 50	M22x1,5	FR361156050R
80 - 70	M22x1,5	FR361158070R